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DAVID FRENCH BOYD, A LOUISIANA EDUCATOR*

WILLIAM DOSITÉ POSTELL†
NEW ORLEANS

David French Boyd, the subject of this brief biography, was a native of Virginia and a graduate of the University of Virginia. At the age of twenty-two years, following the financial upheaval of 1857, he went west, with the intention of seeking work on the Southern Pacific Railroad. When he reached Marshall, Texas, he found that the building operations had been suspended, and he therefore turned to teaching, accepting a position first in Claiborne Parish, Louisiana, and later in Bossier Parish. When the Louisiana State Seminary of Learning and Military Academy opened in 1860, he was appointed, through the recommendation of a friend, to the chair of ancient languages and English. From this time onward the biography of David French Boyd and the story of what is now Louisiana State University become inseparably connected.

The Louisiana State Seminary of Learning owes its origin to certain grants of land made to Louisiana in 1806, 1811 and 1827 by the United States Government "for use of a seminary of learning." The Constitution of 1845 provided for the establishment of the institution by the proceeds of the sale of these lands, a charter was adopted in 1848, and in 1853 a site in Rapides Parish, about three miles from Alexandria, was chosen for the school, which was officially designated as the Louisiana State Seminary of Learning.

When the Board of Supervisors first met in May, 1859, it had been decided that the Seminary should be "a literary and scientific institution under a military system of government, on a program and plan similar to that of the Virginia Military Institute." It is interesting to note that even at this first meeting the health of the future students was a matter of importance. The advertisements which appeared in the Louisiana and Washington, D. C., papers announcing that applications would be received for the position of superintendent and for other faculty positions also specified that one of the assistant professors must be a qualified surgeon, so that, in addition to his teaching duties, he could look after the health of the students.

William Tecumseh Sherman was elected Superintendent and Professor of Engineering, and David French Boyd was appointed to teach ancient languages and English. The other assistant professors were Anthony Vallas (mathematics), Francis W. Smith (chemistry), E. Berte St. Ange (modern languages), and Dr. John W. Sevier (ancient languages), who was also to act as surgeon.

The Seminary of Learning opened its doors at a singularly unpropitious time. The first session lasted from January 2 to July 1, 1860. The second opened November 1 of the same year, and before it had ended the War Between the States had broken out. The school struggled along until 1863,

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†Librarian of the School of Medicine of Louisiana State University.

in April of which year the Red River Valley was invaded by the Union Army and the school finally gave up the unequal struggle.

Immediately on the outbreak of the war, Superintendent Sherman resigned to enter the Union Army and almost the entire faculty and student body followed his example but entered the Confederate Army. One of the first members of the Faculty to resign was Professor David French Boyd. The Supervisors, like the Superintendent, apparently regarded him as "a very clever gentleman" and a very valuable teacher, and at their request, in order that the session might be finished out, he withdrew his resignation and remained in his position until July, 1861, when leave of absence was finally given him.

With a number of cadets he went immediately to Camp Moore, near New Orleans, where he enlisted as a private, so that he might be free to return to the Seminary of Learning if he should be needed there. Promotion was rapid, and he was soon elevated to the rank of major in Stonewall Jackson's army. At this time the Supervisors of the Seminary persuaded the Confederate War Department to release him from his command for duty at the school. The request was granted, but when he returned to Louisiana he found that it had been decided not to reopen the school during the war. He therefore reentered the army, this time as a member of General Richard Taylor's staff. In the fighting which took place shortly afterward he was taken prisoner, and it is of interest that his exchange was arranged for by General Sherman, his former superintendent. During the rest of the war Major Boyd acted as adjutant-general in General Brent's Cavalry Brigade. In June, 1865, he was paroled at Shreveport, with the last of the Confederate troops.

Major Boyd, it will be remembered, was still a member of the Seminary of Learning Faculty. Immediately after the surrender he began to take steps toward the reorganization of the school, and in July, 1865, he was appointed by the Board of Supervisors to the position of acting superintendent. As might have been expected, he found an appalling amount of work to do. The physical condition of the building and grounds was deplorable. Everything was in need of repair. The walks had been torn up, bushes and weeds covered the campus, the fences had been burned, many of the doors and windows were gone, the roofs were leaking, the floors were rotting, and the furniture, scientific equipment and books had been removed by the Federal Army in 1863 and 1864. Worst of all, financial support for the Seminary was at a very low ebb.

Superintendent Boyd possessed admirable foresight and vision, and in his mind was the conception of a great state university for Louisiana. As the first step he proposed that the then defunct University of Louisiana at New Orleans (now Tulane University) be reorganized and united with the Seminary. The plan was that the Seminary should consist of the academic and engineering schools and the University at New Orleans of the law and medical schools. Constitutional limitations, unfortunately, were found to stand in the way of this far-sighted plan. Failing in this endeavor, Boyd next attempted to organize the Seminary on the lines of a university. Two years of required studies were to be followed by two years of optional studies, and the plan, which was put into operation at once, was continued with some modifications until 1880.

The four-year literary course embraced Greek, Latin, Spanish, mathematics, natural philosophy and anatomy, civil engineering, chemistry and geology. The scientific course was the same except that Greek was omitted and more work was required in chemistry and engineering. The civil engineering course for the first two years was the same as the literary or scientific course; the last two years were made up chiefly of engineering and related subjects.

Since the Special School of Medicine is the chief concern of the medical profession, Colonel Boyd's (he soon became Colonel, as did all the earlier presidents of L. S. U.) activities in this connection must be outlined in some detail. At a meeting of the Board of Supervisors held June 11, 1866, a Mr. Boyce had introduced a resolution which provided, because "a general knowledge of

Anatomy, Physiology and Hygiene is desirable in the students of this institution," that there be created a professorship of these branches. The salary was to be one thousand dollars yearly, with quarters, and the surgeon of the Seminary was to be "the professor of the said chair."

The occupant of "the said chair," it will be noted, had a large number of responsibilities. Another professor, who was advertised for in the same year, also seemed likely to be kept busy. He was to serve "as professor of Chemistry, Geology and Mineralogy" and in addition was to be "a graduate of medicine and an experienced physician; his testimonial embracing qualifications in both branches . . . "[1]

Dr. J. W. Wilson, a relative of the then Governor of Louisiana, Henry W. Allen, was found to possess the necessary qualifications and was accordingly elected Acting Surgeon of the Seminary. A native of Virginia and a graduate of the University of Virginia, he had practiced medicine in St. Louis for fifteen years before the war. He served in the Confederate Army and could not return to Missouri immediately after the surrender because of the test oath requirement of that state. The day after the resolution authorizing the establishment of the Special School of Medicine of the Louisiana State Seminary of Learning he was notified of his appointment as Surgeon and Professor of Anatomy, Physiology and Hygiene. Dr. John R. Page, who, like Dr. Wilson, had been graduated from the University of Virginia and had served in the Confederate Army, was appointed to give lectures in materia medica.

The course of study of the Special School of Medicine warrants a further digression from Colonel Boyd's personal biography. Its purpose, according to the catalog issued in 1866, was "to give a good preliminary preparation for the School of Medicine in New Orleans (now Tulane University). *But more accomplished.*" It was further specified that in both the medical and engineering schools the course should include French and Spanish, belles lettres, mental and moral philosophy, and political economy. A further insight into the educational ideas of the times is gained by certain other provisions in the curriculum. Materia medica, mineralogy and geology were taught as a single course in the School of Medicine. Latin was required in the School of Medicine (which would be an eminently desirable requirement still), but anatomy and physiology, for some unknown reason, were taught in the School of Engineering as well as in the medical school.

The catalog further stated that there should be a distinction between the diplomas granted to the graduates of the two schools. Graduates in the engineering school were to receive diplomas with the title "Graduate in the School of Civil Engineering," but the diplomas of the medical students merely read "Proficient in the School of Medicine."[2]

The attempt to build up a medical library was one of the interesting activities of the Special School of Medicine. In all, 443 books on medical subjects were collected, and the subscription list included six scientific journals.[3] The three-volume set of "Leçons Orales de Clinique Chirurgicale" now in the Agramonte Memorial Library of the present School of Medicine of Louisiana State University seems to be all that remains of the original collection. Evidence of its inclusion in it is furnished by the stamp on the title page, "Louisiana State Seminary of Learning and Military Academy near Alexandria, La."

The authorities apparently realized during the first session that their efforts to found a school of medicine were ill-timed and premature. A resolution was introduced in October, 1867, recommending that it be discontinued, but it was voted that this action be deferred until a longer trial could be given. The 1867 catalog, however, makes no mention of the Special School of Medicine, and the minutes of the Board of Supervisors show that Dr. Wilson and Dr. Page were assigned to teach non-medical subjects.

Thus ended the first abortive attempts to teach medicine at Louisiana State University. The Charter of 1877 included a specific provision for the establishment of a medical school, but nothing was done in

that direction until December, 1930, when plans were made for the present School of Medicine of Louisiana State University, the first session of which was opened the following October.

After 1867 it became increasingly difficult to continue the Louisiana State Seminary of Learning, due to the chaotic condition of state finances during the reconstruction period. Warrants for Seminary appropriations, when paid at all, were in state obligations and depreciated currency. They were never paid in cash, and the discounts from 1867 to 1869 averaged 32 per cent. Professor J. M. Garnett, who left the school soon after the radical reconstruction period in Louisiana set in, wrote:[4] "Colonel Boyd was an excellent officer, and with a less efficient man the Seminary would have gone under long ago. His chief thought was how to get money to keep the Seminary going. The appropriations were warrants which Colonel Boyd had to dispose of at a fearful discount. It was a wonder how he kept up the institution as well as he did, especially in view of the financial condition of the state after the war."

When the buildings of the Seminary took fire and burned to the ground the morning of October 16, 1869, a less resolute man than Colonel Boyd would have considered that the end had indeed come. Instead, he dismissed the students temporarily, but told them, with incurable optimism, to hold themselves ready to report at any time to new quarters.

These new quarters, after the investigation of several possibilities, were finally located in the building of the Institute of the Deaf and Dumb Asylum in Baton Rouge. Attempts to transfer the building to the school were unavailing, and for many years the cadets of Louisiana State University (as the Seminary had been named in 1870) and the inmates of the Institute were housed in the same building. The inconveniences of the arrangement need scarcely be enlarged upon. There was insufficient room for the museums, library and laboratories, the cadets were housed eight and ten to a room, and they drilled in the public streets because the grounds of the Institute were entirely inadequate for exercise and military maneuvers.

Financial difficulties continued. The faculty changed frequently, and the remaining professors, to compensate, were obliged to take on extra courses or rearrange the courses they were teaching. At one time Colonel Boyd found himself teaching mathematics instead of Greek and Latin. Again and again he had to appear before the Legislature and literally beg for funds, an extremely distasteful necessity because the legislators then consisted of scalawags, deserters from the Confederate Army, extreme carpetbaggers, and a few negroes, all of whom, as Colonel Boyd put it, were "enemies of the University."

During the session 1872-73 the beneficiary students, whose tuition, fees and board were paid by the Legislature, were withdrawn, and only about 45 students remained. The University, in fact, was worse off in 1873 than it had been in 1865. Colonel Boyd, entirely undaunted, appealed to the people of the state for help, saying that he had given up all hope of receiving aid from the legislature. The response was meager, and from 1873 to 1877 the condition of the school was deplorable in the extreme. No money at all was appropriated by the Legislature and the only source of revenue was the small fees paid by the students. The school was frequently sued for debt, and many such suits were brought against Colonel Boyd personally. Most of the professors withdrew, one after the other, to seek employment elsewhere, and the few who remained because of their devotion to Colonel Boyd served for small pay or none at all.

Throughout these trying days Colonel Boyd remained steadfast. He was several times offered excellent positions elsewhere, and his friends repeatedly urged him to give up his apparently hopeless task. To these offers and to the entreaties of his friends he replied, "I can't leave until the war is over." The diary which he kept during 1874 and 1875 tells the whole story of struggle, hardship and disappointment. December 22, 1874, he wrote, "I have but one pair of old pants and they are worn out; and but

one old cit. coat, in the same fix." Frequently, he wrote, the professors' table was without meat, sugar or coffee, "and so it has been for nearly two years past; often after breakfast we have nothing for dinner —no money, no credit; yet we lived."

Then a new day dawned. In 1877 the Louisiana State University was merged with the Louisiana Agricultural and Mechanical College which had been founded in New Orleans in 1874, and adequate financial support for both institutions was secured. Colonel Boyd at first declined the presidency, believing that a new man should be appointed, but was finally persuaded to accept the position. The enemies whom the monetary difficulties of the early years had made for him attempted soon afterward to discredit him and have him removed from his position. A legislative committee was appointed for the investigation, but found the affairs of the University in perfect order and had only praise for his administration. When he finally retired, in 1886, he left an institution whose forward path lay straight and plain before it.

As far as lay in his power Colonel Boyd, from first to last, filled the minds of his pupils with ideals of reverence, morality, honor and manhood. Those ideals permeated his own conception of "true and virtuous education." Again and again they appear in his reports, and he saw to it that they were embodied in Act 145 of the Legislature of 1876, which defined the scope of Louisiana State University:[5] " . . . shall have for its object to become an institution of learning, in the broadest and highest sense, where literature, science, and all the arts may be taught; where the principles of truth and honor may be established; and a noble sense of personal and patriotic and religious duty inculcated; in fine, to fit the citizen to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."

Colonel Boyd was himself a living example of what he believed. He showed his students as well as taught them that happiness can be found in every walk and every stage of life in the path of duty and the service of others. If ever a man lived who believed in the ultimate triumph of the right it was David French Boyd. It was this that made him undergo the incredible toils and privations of the early days of the school. Every page of his diary burns with the fire of selfless devotion. It is a story of struggle and suffering and poverty, of sorrow and privation and pain, of efforts foiled and hopes deferred, but it is also a story of undying faith and trust and confidence in the right.

We commemorate Colonel David French Boyd because he was a benefactor of Louisiana and of the whole South. We commemorate him with even truer reason because in founding a great university, literally without money, he endowed it with his own radiant soul.

REFERENCES

1. Minutes of the Board of Supervisors of the Louisiana State Seminary of Learning and Military Academy, 1865-1876.

2. Official Register of the Officers and Cadets of the Louisiana State Seminary of Learning and Military Academy. Session ending June 30, 1866.

3. Whitfield, Edwin: History of Education in Louisiana, U. S. Bureau of Education. No. 20. Government Printing Office, 1898. pp. 93-94.

4. Fleming, Walter L.: Louisiana State University 1860-1896. Louisiana State University Press, 1936, p. 144.

5. Acts passed by the General Assembly of the State of Louisiana at the first session of the fifth legislature begun and held in the city of New Orleans January 1, 1877, and at the extra session convened at the city of New Orleans March 2, 1877. New Orleans, Geo. W. Dupre and Co., 1877. Act No. 145.

SURGICAL TREATMENT OF DETACHMENT OF THE RETINA*

W. R. BUFFINGTON, M. D.
NEW ORLEANS

Simple retinal detachment is a separation between the pigment epithelial layer of the retina and the other retinal layers by fluid.

Anatomically, the retina is attached at the optic disc and at the ora serrata. The intervening part is in contact with the choroid, but not attached to it. Primary degeneration of the vitreous, perforation of the globe, perforating ulcers, and subretinal hemorrhages, by lowering intra-ocular tension, predispose to retinal detachment.

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Opinions differ as to the cause of simple detachment. One or more of the following conditions is probably the predisposing cause in most cases: (a) The intra-ocular pressure in front of the retina falls below normal; (b) the pressure behind the retina is increased; (c) adhesions between the vitreous and the retina pull on the latter, causing its detachment.

DIRECT CAUSES OF RETINAL DETACHMENT

1. Concussion of the eyeball; subretinal hemorrhage; perforating injuries; perforating corneal ulcers, notably seen as a remote complication after removal of intra-ocular foreign bodies by the posterior route. I have seen five cases of this type.

2. In progressive myopia the non-elastic retina is in contact with the elastic sclera, and the choroid is put on increased tension due to the enlargement of the globe. The elastic sclera softens as the vitreous becomes more liquid, culminating in detachment.

3. Inflammations: Severe acute and chronic uveitis, are often responsible for detachment. Retinitis, by producing exudates and changes in the vitreous, is a potent cause. All cases of retinitis externa with massive exudates, known as Coats' disease, which I have seen finally end in detachment. All intra-ocular inflammations and hemorrhages which leave behind organized fibrous tissue show a high percentage of detachments. Prognoses, with any treatment in such cases, are practically nil.

4. Constitutional diseases: (a) Toxemia of pregnancy (Schiotz saw seven in 6800 cases; the prognosis is good); (b) in the late stages of nephritis.

5. The retina is pushed forward often in a bullous-like protrusion in the so-called detachment of the choroid which in some instances follows cataract extraction and trephine operations for glaucoma. The prognosis in these cases is favorable. One patient only have I seen following a trephine operation and in this person a permanent detachment resulted.

6. Tumors of the choroid are a frequent cause for detachment. It is obvious that such cases of detachment are not amenable to surgical treatment, and the removal of the eyeball is necessary due to the fact that these tumors in nearly all instances are melanosarcomas.

In discussing traumatism, the most frequent direct cause of retinal detachment, this statement by Arrugo is worth repeating: "In normal eyes, traumatism must be severe to produce retinal detachment. In predisposed eyes, a very slight trauma may produce the condition." In normal eyes it is unusual for detachment to follow even severe blows, unless a perforation of the globe or a rupture of the retina takes place. Direct trauma to or about the eye is common to football players, pugilists, and wrestlers. Detachment is relatively uncommon among them. The reason for this is that they are young and healthy. They have not yet had intra-ocular degeneration and other changes which take place as age advances.

In the predisposed eye, a slight blow over the eyes or on the head, bumping into a door, even rubbing the eye with the fingers, may be responsible for a detachment. In these eyes the time between the trauma and the detachment may be several days or weeks. In some instances it is delayed several months, according to the best observers.

This brings up the question: What are predisposed eyes?

1. Myopic, or near-sighted changes account for from 50 to 60 per cent. Myopia is on the increase, due to the intensive requirements of modern education. It is a disease and should not be looked upon as merely an error of refraction to be corrected with glasses. Malignant myopia, or progressive near-sightedness, should be given serious consideration in early life among those children affected. In addition to being a most important predisposing factor in detachment of the retina, myopia is often responsible for serious impairment of vision in later life.

2. Senile changes in which there is a thinning of the retina due to cystic degen-

eration, and peripheral fundus through the dilated pupil.

According to Stallard's figures, the onset of detachment was sudden in 52 per cent, insidious in 42 per cent, traumatic history 16 per cent, previous eye trouble 24 per cent. Refractive errors: Myopia 42 per cent, hypermetropia 11 per cent, emmetropia 11 per cent, vitreous opacities 47 per cent. (My experience shows a higher incidence). Age incidence: More frequent between 40 and 70 years old; average 60 years.

The subjective symptoms of detachment are: Light flashes; waving curtains; reduced light minimum; contraction of the visual field. On the other hand, in many cases the disturbance is not noticed by the patient until the macula or central retina have become involved.

TEARS, RENTS, DISINSERTIONS

The importance of recognizing and locating the rupture in the detachment of the retina known as tears, rents, and disinsertions, and their closure by modern surgical means, are the most important factors in the successful treatment of detachment of the retina. Tears may be secondary but once formed they create a vicious circle. So, their closure is vital to success. Tears, rents, or disinsertions, are found in at least 75 per cent of all cases of spontaneous or idiopathic detachments (the use of the word spontaneous or idiopathic is applied to these cases of detachment in which no other cause can be found and these are the ones which are amenable to surgical treatment). These tears or rents can exist and yet not be visible, being too far in the periphery of the fundus. In order therefore to find them it requires time, patience, and a careful examination through a widely dilated pupil with an excellent ophthalmoscopic illumination. Tears are often multiple. In some instances these ruptures, tears, or disinsertions, are so extensive that treatment would be of no value.

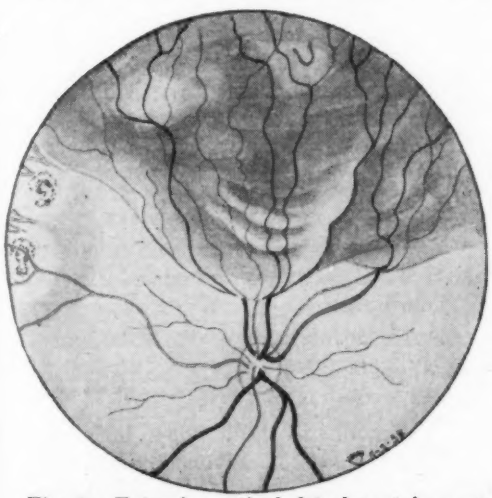

Fig. 1. Extensive retinal detachment in a patient following a fall.

LOCALIZATION OF TEARS

You can readily understand that since the retinal tears are located on the inside, and the surgical treatment is applied to the outside of a globe, it becomes vitally important to locate the tears in order to treat them through the scleral surface. To miss the tears would be to defeat the purpose of the treatment.

The history is most important in determining the location of the tear and beginning detachment. If temporal and above, the patient first notices flashing of light, flickering in the lower nasal field. If his observation is accurately made, one begins to form a pretty good idea where the tear is located. As the detachment advances, the field contracts. Some observers have thought in cases of trauma the tear is often opposite the site of the blow. A history of a moderately slow loss of the upper half of the field is almost sure to have a disinsertion below, temporally. Exact localization of the tear is not vital to successful surgical treatment of retinal detachment. One must select a practical way to serve his purpose best. Most methods published recently in the literature, though accurate, are too complicated for practical use; others are so entwined with higher mathematics that the average doctor is lost in a maze when he attempts the solution of the problem.

Ridly gives practical data in the following statements: "Tendency to underesti-

mate distance between the hole and the periphery." His rule is:

1. Count 10 mm. from limbus to retinal periphery at the ora serrata.

2. Estimate each disc diameter 2 mm. instead of one.

3. A diathermy application 12 mm. from limbus is just visible in its entirety, at the periphery. One, 22 mm. from the limbus is as far back as the tears are seen, almost to the macula. Between these two points good judgment must be exercised.

The following has been my procedure in a practical localization:

1. Chart the fundus on a flat surface.

2. Intra-ocular measurements are made in disc diameters; the scleral surface in millimeters.

3. In transposing, each disc diameter equals 2 mm.

4. The watch dial is the guide for the circumference location of the meridian of the tear.

TREATMENT

The recent advances in the treatment of detachment of the retina represent a distinct advance in medical science. How helpless oculists of the past felt when placed face to face with this condition.

The basic treatment has been to co-apt the detached retina and choroid by drainage of the subretinal fluid. The choroid, compared to other vascular membranes of the body, has very feeble absorptive powers. To increase bodily absorptive powers the older method of treatment, with which you are familiar, was to give diuretics and diaphoretics: Hot air, baths, purgatives, pilocarpin, and injections of hypertonic saline solution. The cures were few and far between.

A careful study of each particular case plays an important role to guide us in the course of treatment to follow. The etiology, a careful study of the vitreous, retina, and choroid, are essential. Gross vitreous changes, intra-ocular fibrous bands resulting from inflammations and hemorrhages, active retinitis or choroiditis, patients with giant tears, and intra-ocular hypotension, are poor risks, and are best treated along conservative lines. Because of the strenuous preoperative and postoperative requirements essential to successful treatment, feeble old people are manifestly poor risks.

Absolute rest in bed is the first essential in treatment. The patient's head is lowered or elevated, depending on whether the detachment is above or below. Binocular

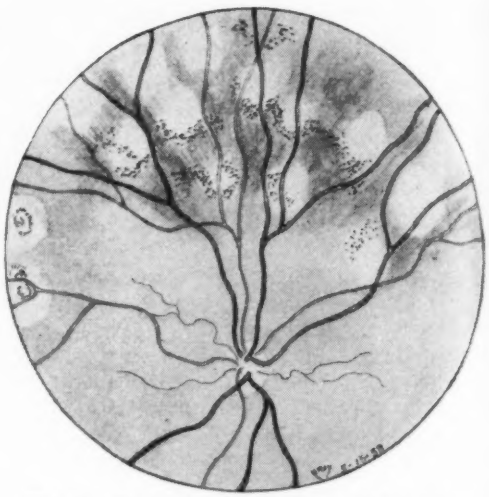

Fig. 2. Reattachment showing retinal scars, a result of the surgical treatment by the diathermy multiple micropin punctures. These adhesive scars hold the retina in place. Final vision in this case was 20/30.

bandages, and peep-hole goggles are used; the binocular bandages for two weeks after the operation, then the peep-hole glasses worn. Experience has taught that the bodily and ocular movements will defeat any treatment, no matter how perfect.

My best results have been obtained by the following procedure:

1. A careful history as to cause.

2. The location in the field of vision of the first subjective symptoms of flickerings or field defects.

3. A careful study of the detachment.

4. Localization of tear, tears, or disinsertion.

5. Immobilize, and bandage both eyes to study the effect on advancement or recession of the detachment, and better to localize the tear.

6. Prepare a patient as for a cataract extraction or any other intra-ocular surgery.

7. The time element between detachment and operation is not as important as it was once thought. Some of my best results have been obtained after six months' duration or longer.

8. Careful fixation of the patient; localization of the tear, if possible; and a study of the extent and type of detachment.

9. After the conjunctiva and one or more muscles are divided, and the markings made for location on the scleral surface, 20 to 30 fine, short, sharp, micropins are introduced through the sclera with a diathermic current of 30 to 40 milliamperes. After these have been introduced, more inaccessible areas marked for treatment are punctured with the Lacarrere instrument with a current of 50 to 60 milliamps. All pins are then removed quickly, almost simultaneously. The failure of the sub-retinal fluid to be evacuated often defeats the purpose of the operation. It is vital for the retina to come in contact with the diathermically treated choroid. A point in my experience: The subretinal fluid drains most successfully from the multiple micropin punctures when the pins are removed almost simultaneously. This is certainly true if all the pins are kept intact until the operation is completed. I think the better drainage is due to the uniform hydrostatic escape of the sub-retinal fluid causing the detachment.

In treating a disinsertion at the ora serrata, two rows of micropins are introduced behind the defect. I try to make distance between pins about 3 mm. In tears located some distance from the area, one row of pins is inserted in front of and a second row behind it. The treatment is not confined to the area of the tear, but the punctures are so made as to complete the whole detachment in a given quadrant.

The micropins must be short and fine in order not to damage the retina. I have had most of my pins so shortened that even in flat detachments they cannot penetrate deep enough to touch the retina.

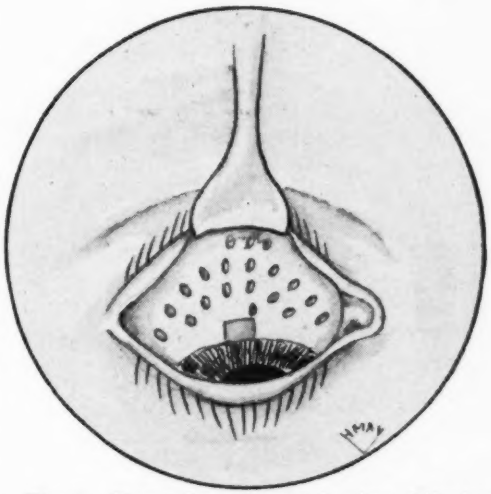

Fig. 3. Shows the micropins in place following their insertion by diathermy. These are removed after the necessary number have been inserted. The subretinal fluid passes out through the punctures, thus permitting the retina to be replaced against the choroid. After healing, if successful, the results are as seen in Figure 2.

In a series of forty patients operated on, three have been operated on twice, successfully, giving a vision, respectively of 20/30, 20/70 and 20/100. Another, aged 63, a high myope, had a detachment of one year's duration; the operation was successful. Vision was improved from hand movements to 20/70. In her case the tear was found and localized. In three patients following cataract extraction, operation was successful in one and a failure in two.

POSTOPERATIVE COMPLICATIONS

1. Panophthalmitis has been seen; I have had one case.

2. Vitreous hemorrhages are a serious complication and may defeat an otherwise successful operation; often seen the day after the operation.

3. Marked chemosis is regarded by some as offering an unfavorable prognosis, indicating that the exudation of fluid externally is nearly always associated with transudation of fluid beneath the retina; or, it may occur on the third or fourth day when excessive diathermy has been used.

4. Some have reported thrombosis of retinal veins, which defeats the purpose of the operation.

I want to tell you about these micropins. We just put them on and drive them in with a current of 20 to 35 milliamperes, like tacks. They go through the sclera. We use about 30 of these pins, 3 millimeters apart. When we take the pins out, the retina goes back into place, and where each pin was attached a little inflammatory adhesion takes place. Of course, blindness always occurs where these pins were, but it is not central blindness; the patient will have vision.

CONCLUSION

Many people who have certain types of ocular disease can have a marked reduction of vision and yet will be able to lead a very useful and worthwhile life.

HYPERTENSION AS A SYMPTOM OF RENAL FAILURE

A REVIEW OF THE RECENT LITERATURE*

ROBERT HEBARD BAYLEY, M. D.†
NEW ORLEANS

Ivy and McEwen,[1] in a recent discussion of the physiologic aspects of hypertension, advanced the concept that there is at least presumptive evidence that this condition is caused by a hormonal agent of renal origin. It is likely that the hypothetical agent may be the intermediate product of an enzyme acting on a substrate in the blood. The acceptance of this concept, it is clear, leads to the conclusion that the kidney is an organ of internal secretion as well as of external secretion and is in this sense bifunctional.

The work of two outstanding investigators, Goldblatt[2] and Page,[3] seems to support the concept recently advanced by Ivy and McEwen. Goldblatt, by constricting the main renal arteries with a special clamp left *in situ,* was able to produce experimental chronic hypertension due to renal ischemia. Page has shown that the reaction of a renal extract with normal blood results in the formation of a vasopressor substance which is found in the peripheral circulation of dogs with experimental hypertension and of human subjects with nephritic, malignant or essential hypertension.

The retention of waste products is generally accepted as a symptom of failure of the external renal function. The new concept would seem to demand that hypertension be regarded as the symptom of failure of the internal renal function. Very little is known as yet about the normal internal renal function, but it can be stated quite positively that its disturbance, presumably by ischemia, results in hypertension. It can also be stated that hypertension cannot occur unless the adrenal cortex is present.[4]

A reconsideration of the various clinical renal disorders in the light of these facts would probably reveal them to be characterized by external or internal renal failure or by bifunctional failure. Diabetes mellitus, for example, is a well known illustration of unifunctional failure of the pancreas, while pancreatitis may occasionally serve as an illustration of the bifunctional type of pancreatic failure.

Goldblatt,[4-6] by moderately severe constriction of the main renal arteries, has been able to produce experimental failure of the internal renal function without any evidence of failure of the external function. He was also able to produce the bifunctional type of failure by an extreme degree of arterial constriction.[2, 5, 6] He compared the vascular pathology produced by moderate constriction of the renal arteries to that seen in benign essential hypertension in man and the more pronounced vascular pathology produced by extreme constriction to that seen in the malignant phase of essential hypertension in man.

The acceptance of the concept that hypertension is a symptom of failure of an internal renal function is not at all the same as the acceptance of the concept that hypertension is necessarily of renal origin. A simple comparison will make the distinction

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†From the Department of Medicine of the School of Medicine of Louisiana State University.

clear. Macrocytic hyperchromic anemia is a symptom of failure of the gastric hormonal function, yet it may be of hepatic origin, as in cirrhosis of the liver, of gastric origin, as in pernicious anemia, or of dietary origin, as in pellagra.

An examination of the more common clinical conditions upon which the concept of bifunctional renal activity seems to have a bearing reveals that so-called essential hypertension is by far the most common condition in which hypertension alone is the predominating symptom. The chief complaints of patients with essential hypertension are usually cardiac or cerebral in character, yet the new concept of hypertension compels one to look for a possible cause of disturbance of the internal renal function. Time and time again, furthermore, one is amazed at the fruitful reward of a search made with definite presumptions in mind.

For many years no one had been concerned with the apparently causal association of hypertension and the chronic or healed forms of pyelonephritis, and up to 1930, according to Bell and Pedersen,[7] no cases of bilateral pyelonephritis associated with hypertension had been reported. Since that time, however, a number of publications have appeared in which hypertension is related to occlusive vascular changes in the kidneys which may occur in pyelonephritis.[8-11] Even more striking are the increasing numbers of cures of hypertension by the performance of nephrectomy for chronic or healed unilateral pyelonephritis.[12-16]

A case was recently reported in which the relief of hypertension followed nephrectomy for unilateral hydronephrosis, without renal infection or vascular changes.[17] Examinations of the urine were negative. Such a case is an exception to the general idea that hypertension in these conditions is necessarily dependent upon arteriolar changes due primarily to infection. It suggests that distortion of the renal pelvis can produce renal ischemia by compression deformity of the renal arteries; neither inflammation nor occlusive vascular disease was demonstrable in the excised kidney.

In a case of bilateral hydronephrosis, reported by Nesbit,[15] bilateral nephrostomy was followed by the relief of an associated hypertension as soon as the second kidney was drained. This patient had a bifunctional type of renal failure. He was sufficiently improved after operation to return to work, but his impaired excretory renal function continued unimproved.

In the future, the patients who make up this group will no doubt account for a commendable reduction in the number of patients formerly classified as having essential hypertension. The diagnostic importance of routine pyelography in all patients with obscure hypertension cannot be overemphasized, even when the urinary studies are entirely negative.

Blackman,[18] in a recent study of cross-sections of the main renal arteries, found a moderate or a marked arteriosclerotic stenosis of the lumina in 86 per cent of a group of patients coming to autopsy with a diagnosis of essential hypertension. There was, however, a negligible incidence of similar changes in a control series of cases in which hypertension was not present. Hypertension was the predominant symptom in the first group of cases, and in them the hypothetical internal renal function was presumably disturbed by renal ischemia. As yet there is no definite idea how great a reduction would be made in the number of patients classified as having essential hypertension by segregating this group of patients.

Moritz and Oldt[19] have pointed out that if unilateral occlusive arterial disease of the kidney could be diagnosed clinically, the associated hypertension might be cured by ipsolateral nephrectomy. Perhaps arterial injection of a suitable medium opaque to roentgen-ray might offer diagnostic possibilities in these cases.

The hypersthenic type of patient, with a family history of hypertension and vascular accidents, is very familiar to all clinicians. It is conceivable that in these patients the nervous system may be capable of initiating renal arteriolar spasm of sufficient severity

to cause renal ischemia. At first the spasm might occur only under periods of great stress. Later it would occur under more casual circumstances. Once the ischemia was established, however, there would be a tendency for the formation of a vicious circle. The vasopressor substance resulting from renal ischemia would initiate a generalized arteriolar constriction that would aggravate further the renal ischemia already present. The not infrequent favorable results obtained in hypertension by operations on the nervous system support this hypothesis.[20-31] Most of them are aimed at relaxation of the splanchnic arterioles, but experimental evidence suggests that improvement probably results from a relaxation of the renal arterioles.[4]

For the same reason certain patients who are seen early enough and who are properly handled may improve with simple measures directed merely at the relief of nervous strain. The frequent failure of surgical measures, on the other hand, would seem to be due to irreversible changes within the renal vessels.

The necrotic arterial changes which some writers consider to be characteristic of the malignant type of hypertension have been found, both clinically[11] and experimentally,[4] to be associated with uremia. They may therefore be regarded as evidence of the bifunctional type of renal failure.

DIAGNOSIS

The group of patients whose disturbance of renal function is due directly to renal arterial disease offers the greatest diagnostic difficulty at the present time. Hypertension is often the only symptom they present and the tendency is, just as it has been in the past, to classify them in the essential hypertensive group. Those with healed pyelonephritis may have normal urine and tests of external renal function may be normal. Those with renal arteriosclerosis are beyond diagnosis by methods presently available.

Certain infectious diseases, such as lupus erythematosis, periarteritis nodosa, and rheumatic fever produce a generalized arteritis, but hypertension is present in association only when there is extensive involvement of the renal vessels.[11] The clinical diagnosis of renal arteritis, however, can be made only by inference. It seems probable that other infectious diseases which are now associated infrequently if at all with arteritis may ultimately be shown to be related by renal arterial involvement to an apparently coincidental hypertension.

When the concept of renal bifunction is applied to glomerulonephritis, the correlations are interesting and perhaps of some practical value. The intensity and extent of glomerular damage determines the severity of renal ischemia which, in turn, determines the severity of the associated hypertension. In acute cases a mild degree of hypertension which soon begins to diminish has long been considered to indicate a favorable prognosis. Severe hypertension, on the contrary, is usually associated with a grave outcome. I have recently observed a patient in whom the blood pressure reached a height of 180/140 within a week after the onset of the acute process. The patient, a five year old boy, died in uremia after an illness of two months, during which time the heart had doubled its normal weight.

In subacute glomerulonephritis the appearance of hypertension heralds the onset of the chronic stage and is looked upon as an indication of irreversible vascular changes, though it may be many months before nitrogenous retention is evident. Hypertension in this condition, therefore, is often a more delicate index of disturbed renal function than are any of the various tests which are used to estimate the status of the excretory renal function.

MANAGEMENT

A word should be added regarding the management of patients with so-called essential hypertension. The concept of hypertension as a symptom of disturbance of a hypothetical internal renal function will serve, first of all, to make the clinician look carefully to the kidneys for a possible correctable factor. Failure to find it will lead to the institution of medical management, at least in the majority of cases. Medical therapy, according to Robinson and

O'Hare's[32] admirable summary, should be as follows: ". . . advise the patient to take adequate rest, avoid mental and physical strain, bring his weight to a more ideal level, eat simple food in small amounts, limit his fluid intake to reasonable levels, and avoid excess of any nature. If [we] add to this a mild sedative [we] will have given the patient what forms the backbone of our present day therapy."

In the occasional case other therapeutic measures may be used. Thus potassium sulfocyanate, which was introduced by Nichols[33] in 1925 but which has never been widely used, has a definite place in the management of certain carefully selected cases. It produces a fall in blood pressure and it should not be used, as a rule, in patients with a history of angina pectoris, congestive heart failure, cerebral accident, or significant failure of the external renal function.[32] The dosage differs widely in different individuals, and while it is being determined the blood level of the drug must be carefully watched. Levels of 7-12 mg. per 100 c.c. of blood have been suggested as optimum.[32]

Certain patients are candidates for surgical intervention, particularly patients with hypertension of relatively short duration. It appears to be impossible, however, to predict the outcome of operation in any given case.[34] Unilateral nephro-omentopexy has been shown to cure chronic hypertension due to renal ischemia in dogs in which the contralateral kidney had previously been removed.[35] The operation, the purpose of which is to establish a collateral renal circulation, was first done on man in 1936 and since that time some twelve similar operations have been reported, with encouraging results.[36, 37] Bilateral nephro-omentopexy does not seem to have been attempted as yet.

SUMMARY AND CONCLUSIONS

Experimental work on the problem of hypertension is making good progress and has already begun to clarify and even change certain of our ideas concerning hypertension in man. Progress, both experimentally and clinically, will no doubt continue at an accelerated rate, and the practicing physician will need to watch developments closely if his patients are to receive the benefits of up-to-date management of their disease.

REFERENCES

1. Ivy, A. C., and McEwen, E. G.: Physiological consideration of certain aspects of hypertension. Quart. Bull., Northwestern Univ. M. School, 14:72, 1940.

2. Goldblatt, H., Lynch, J., Hanzal, R. F., and Summerville, W. W.: Experimental hypertension due to renal ischemia, Bull. Acad. Med. Cleveland, 16:6, 1932.

3. Page, I. H.: The vasoconstrictor action of plasma from hypertensive patients and dogs, J. Exp. Med., 72: 301, 1940.

4. Goldblatt, H.: Experimental hypertension induced by renal ischemia, Harvey Lect., 33:237, 1937-38.

5. Goldblatt, H.: Studies on experimental hypertension. V. The pathogenesis of experimental hypertension due to renal ischemia, Ann. Int. Med., 11:69, 1937.

6. Goldblatt, H.: Studies on experimental hypertension. III. The production of persistent hypertension in monkeys (macaque) by renal ischemia. J. Exp. Med., 65:671, 1937.

7. Bell, E. T., and Pedersen, A. H.: The causes of hypertension, Ann. Int. Med., 4:227, 1930.

8. Butler, A. M.: Chronic pyelonephritis and arterial hypertension, J. Clin. Invest., 16:889, 1937.

9. Longcope, W. T.: Chronic bilateral pyelonephritis: Its origin and its association with hypertension, Ann. Int. Med., 11:149, 1937.

10. Longcope, W. T., and Winkenwerder, W. L.: Clinical features of the contracted kidney due to pyelonephritis, Bull. Johns Hopkins Hosp., 53:255, 1933.

11. Weiss, S., and Parker, F., Jr.: Pyelonephritis: Its relation to vascular lesions and to arterial hypertension, Medicine, 18:221, 1939.

12. Boyd, C. H., and Lewis, L. G.: Nephrectomy for arterial hypertension; preliminary report, J. Urol., 39: 627, 1938.

13. Leadbetter, W. F., and Burkland, C. E.: Hypertension in unilateral renal disease, J. Urol., 39:611, 1938.

14. Crabtree, E. G.: Hypertension in destructive infected unilateral lesions of kidney, Tr. Am. Genito-Urin. Surgeons, 31:299, 1938.

15. Nesbit, R. M., and Ratliff, R. K.: Hypertension associated with unilateral nephropathy, J. Urol., 43:427, 1940.

16. Barker, N. W., and Walters, W.: Hypertension associated with unilateral chronic atrophic pyelonephritis treated with nephrectomy, Proc. Staff. Meet., Mayo Clin., 13:118, 1938.

17. Bartels, E. C., and Leadbetter, W. F.: Hypertension associated with unilateral noninfected hydronephrosis treated by nephrectomy, Bull. Lahey Clin., 1:17, 1940.

18. Blackman, S. S., Jr.: Arteriosclerosis and partial obstruction of main renal arteries in association with "essential" hypertension in man, Bull. Johns Hopkins Hosp., 65:353, 1939.

19. Moritz, A. R., and Oldt, M. R.: Arteriolar sclerosis in hypertensive and non-hypertensive individuals, Am. J. Path., 13:679, 1937.

20. Rowntree, L. G., and Adson, A. W.: Bilateral lumbar sympathetic neurectomy in treatment of malignant hypertension, J.A.M.A., 85:959, 1925.

21. Peet, M. M.: Splanchnic section for hypertension; preliminary report, Univ. Hosp. Bull., Ann Arbor, 1:17, 1935.

22. Freyberg, R. H., and Peet, M. M.: The effect on the kidney of bilateral splanchnectomy in patients with hypertension, J. Clin. Invest., 16:49, 1938.

23. Fralick, F. B., and Peet, M. M.: Hypertensive fundus oculi after resection of splanchnic sympathetic nerves; preliminary report, Arch. Ophth., 15:840, 1936.

24. Crile, G.: Critical review of 822 operations on adrenal sympathetic system with special reference to essential hypertension, Illinois M. J., 70:115, 1936.

25. Page, I. H., and Heuer, G. J.: Surgical treatment of essential hypertension, J. Clin. Invest., 14:22, 1935.

26. Page, I. H., and Heuer, G. J.: Treatment of essential and malignant hypertension by section of anterior nerve roots, Arch. Int. Med., 59:245, 1937.

27. Adson, A. W., and Brown, G. E.: Malignant hypertension. Report of case treated by bilateral section of anterior nerve roots from the sixth thoracic to the second lumbar, inclusive, J.A.M.A., 102:1115, 1934.

28. Heuer, G. J.: The surgical treatment of essential hypertension, Ann. Surg., 104:771, 1936.

29. Crile, G.: Comparative anatomy and pathologic physiology of adrenal-sympathetic complex with relation to genesis and surgical treatment of essential hypertension, J. Michigan M. Soc., 35:694, 1936.

30. Brown, G. E.: Sympathectomy for early malignant hypertension, M. Clin. North America, 18:577, 1934.

31. Craig, W. M., and Brown, G. E.: Unilateral and bilateral resection of major and minor splanchnic nerves, its effects in cases of essential hypertension, Arch. Int. Med., 54:577, 1934.

32. Robinson, R. W., and O'Hare, J. P.: Further experiences with potassium sulfocyanate therapy in hypertension, New England J. Med., 221:964, 1939.

33. Fitz, R.: Kidney disease, New England J. Med., 221:143, 1939.

34. Scupham, G. W., de Takáts, G., Van Dellen, T. R., and Beck, W. C.: Vascular diseases: A review of some of the recent literature, with a critical review of the surgical treatment, Arch. Int. Med., 66:707, 1940.

35. Cerqua, S., and Samaan, A.: Cure of essential renal hypertension, Clin. Sc., 4:113, 1939.

36. deTakáts, G.: Revascularization of the nephrosclerotic kidney, Proc. Central Soc. Clin. Research, p. 49, 1939.

37. Bruger, M., and Carter, R. F.: Evidence of communication between renal and omental blood vessels following nephro-omentopexy for arterial hypertension in men; preliminary note, Am. J. M. Sci., 197:832, 1939.

PUBLIC HEALTH ADMINISTRATION*

W. K. SHARP, JR., M. D.†
NEW ORLEANS

The administration of a public health department requires the full-time services of properly trained and experienced public health workers. A public health program should include, in addition to generalized public health activities, plans for the care of the indigent and semi-indigent sick through the cooperation and active leadership of physicians in the community.

Progress has been made in disease prevention and promotion of public health through the protection of water and milk supplies, general environmental sanitation, communicable disease control and mass education since these activities are generally recognized as basic functions in well equipped health departments. It now appears that public health administrators have an additional opportunity, by broadening their scope of work, to include public health programs directed toward personal health.

Each state is autonomous in all matters relating to public health. Since the state, and not the Federal Government, is the sovereign power the administration of a public health program is primarily a state responsibility. Louisiana organized its first state board of health as early as 1855. It was a joint city and state board of health with powers extending over the state. This was one of the first established state boards of health in the United States and it was a direct result of a yellow fever epidemic in 1853-1854. The primary function of this board of health was the protection of the city and state from yellow fever.

COOPERATION BETWEEN U. S. P. H. S. AND STATE HEALTH DEPARTMENTS

Over half a century has passed since the Public Health Service was given authority to cooperate with state and local health departments in preventing the spread of diseases from one state to another. The records of the medical and health accomplishments of those brilliant years are now historic annals. For the past 25 years the Public Health Service has been engaged actively in cooperating with state and local health departments, and, to a limited degree, in studies and demonstrations in rural health work. Therefore, when Congress enacted the Social Security Act it indicated that the Federal Government had recognized the importance of a national public health program with joint responsibilities of federal, state and local agencies.

In view of the experience of the Public Health Service in cooperative activities with states, there has been nothing untried or unproved in the method of cooperating with State Health Departments, and the states themselves, in turn, have acquired knowledge and experience in cooperative public health procedures. It has been through this combined valuable experience and knowl-

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†From the United States Public Health Service.

edge that the states have been enabled to make such splendid progress in the development of their own programs.

"The work to be done under Title VI of the Social Security Act is not to be performed directly by the Public Health Service, but is to be carried out by, and administered under, the supervision of the state and local health authorities, under the authority of state and local laws and regulations, in the same manner as the regular activities of such authorities have been performed heretofore. All funds paid to the states become state funds, just as if they had been appropriated by the state legislatures. All persons employed within the states and local communities are state or local employees, selected, appointed, and paid by the state or local authorities."[1]

The first need in the development of any public health program is the organization of a state health department, supported by an active board of health, comparable to the board of directors of a bank or a strong governing body. The State Board of Health is the governing body and serves only on a part-time basis. The state health department consists of the state health officer and his staff and is known as the administrative organization. The personnel of the department of necessity should be efficient, carefully selected, highly trained and serve on a full-time basis. Such an organization needs to be small, compact and trained for the rendition of expert consultative service to local health departments. One of the specific requirements for the use of funds made available under Title VI of the Social Security Act is that state and territorial health departments, bureaus and divisions be strengthened so as to provide the parent organization with funds and trained specialists for leadership in tuberculosis, venereal diseases, cancer, vital statistics, engineering, nursing, dental, laboratory, and other comparable services.

Probably the next need in the development of a public health program is the organization and maintenance of full-time local (city-county-district) health departments. It is through such organizations that the local programs are to be developed. The ultimate responsibility of providing health service directly to the people is largely through full-time, well staffed, competent local health departments. These organizations are in close proximity to the existing problems. The state health department should provide financial assistance to local health services. Practically all full-time local health departments have been developed as a direct result of state leadership and financial assistance.

PERSONNEL

One of the most important factors in the success of a public health program is the fitness of those to whom the administration of the program is entrusted. Even though over 3,000 health officers, nurses, laboratory directors and other professional and technical personnel have been trained since the availability of funds under Title VI of the Social Security Act, there still remain large sectors of the United States where the very foundation of a health program has not been laid. Not more than half of the state health departments are adequately staffed or satisfactorily equipped to render the service which they alone can give, regardless of the extent to which local facilities may be developed. Less than one-third of the counties and a smaller proportion of the cities employ competent full-time health officers. Although recent federal participation under the Social Security Act has made possible a net gain of 623 counties, or about a 96 per cent increase under full-time health administration, and there are now eight states in which all the counties or districts are served by full-time health units, many of the existing health department activities are too thinly spread.

The number of counties in the United States at the present time under the administration of medical health officers, employed full-time, reached a new height of 1,371 in 1940[2] as compared with 557 such services in 1931.[3] At present 42 parishes in Louisiana have made provisions for such services as compared with 31 in 1931.[3] On January 1, 1935, there were 142 full-time health workers serving 34 parishes and on

January 1, 1940, there were approximately 300 workers serving 42 parishes. This represents over 50 per cent of the rural population of Louisiana.

In response to the demand for trained personnel so essential in the rapid expansion and organization of these health services, approximately 1,500 individuals in the United States and about 75 in Louisiana received public health training for positions with official health agencies during the current year. A total of $44,861,522 in state and local funds (exclusive of funds of large cities) was made available for public health services in those health jurisdictions where federal funds were budgeted four years ago. This, the Surgeon General of the United States Public Health Service points out: "It is seen that federal financial assistance has served to stimulate rather than decrease state and local responsibility toward the health of the people."

Perhaps the most significant progress during the past four years, however, has not been in terms of legislation, nor yet in terms of actual public health accomplishment, but in the development and presentation to the country of a far reaching national health program designed to deal, in a comprehensive way, with the whole program of health and medical care. With this recognition from our Federal Government, through the Social Security Act, enacted in 1935, and the Venereal Disease Control Act enacted in May, 1938, many states have planned a five to ten year program. No more significant or hopeful sign in the field of public health exists than the present interest in the problem displayed by the public, especially by women's organizations and lay groups in general, which means very definitely that public health has become a public responsibility.

We now find ourselves faced with some difficult problems in the field of administration, tuberculosis, venereal disease, pneumonia, cancer, mental health, industrial hygiene, expansion of maternal and child health services, and the medical care of the needy. Each of these special problems deserves special consideration, but the time allotted to this paper will permit the recognition of only a few of them.

ADMINISTRATION

A few of the main unsolved problems are:

1. Lack of security of tenure of office has made it very difficult to secure public health personnel. A merit system should in part solve this difficulty.

2. There is need for leadership both by the medical profession and public health personnel. Even though the public health schools are cooperating to a maximum degree, there is now, and will be for some time to come, an increasing demand for well trained professional public health workers.

When security of tenure of office is provided, the task of securing public health workers will be less difficult, and when proper personnel is secured, trained and qualified, the task of public health leaders will be lessened. Therefore, health workers can more wisely and scientifically develop public health programs in keeping with the community needs.

Frequently health officers, in planning a public health program, fail to give full recognition to well established administrative and epidemiologic principles. Since pneumonia, syphilis, tuberculosis, cancer and other diseases of this type constitute the real problem, why is it necessary to devote a large share of the public health workers' time and effort in combating a disease of minor public significance?

TUBERCULOSIS

In spite of our long campaign against the "Great White Plague", 70,000 Americans die of it annually. In any year there are probably 420,000 active cases, which, within their families, expose a million other persons to infection. Through this cycle alone there is maintained a tuberculosis population numbering 1,500,000. In the 15-45 year age group—men and women in their most creative years—tuberculosis mortality ranks second only to accidents. The disease works its greatest havoc among negroes, workers in certain occupations, and generally among persons of low income.[4] An

aggressive program should, first of all, begin by defining the problem and should consist of case-finding, especially by x-ray examination of contacts to known cases, directed particularly towards persons in areas of economic need and in age groups among whom the incidence of the disease is high; adequate clinics under the direction of medical specialists for the examination of cases, especially contact cases; more extensive hospitalization of incipient cases; isolation and treatment (usually bedside) of open cases; and follow-up and rehabilitation of arrested cases. The early case-finding is educational to both the patient and the physician.

It is estimated by the Louisiana State Health Department that the average annual number of deaths from tuberculosis in Louisiana is approximately 1,400, which indicates that there are approximately 8,000 to 10,000 active cases in the State.

The State Health Department has established a diagnostic unit for the purpose of case-finding, diagnosis and hygiene instruction in connection with tuberculosis control. There is need for at least one additional case-finding unit and further stimulation should be given to augment nursing service, and a close cooperation of all official and non-official agencies crystallizing sentiment for increasing the bed capacity for tuberculosis cases.

VENEREAL DISEASES

Syphilis is a dangerous communicable disease, that attacks four times as many Americans as scarlet fever, ten times as many as diphtheria and more than one hundred times as many as infantile paralysis. "Every year one million Americans contract syphilis."[5]

At present there are approximately 50 venereal disease clinics operating in Louisiana, in 20 parishes. This represents about 50 per cent of the population of the state. There were approximately 91,000 visits to clinics during the last six months of 1939, and about 5,500 patients are constantly under treatment through the cooperation of the State Health Department, the medical profession, and the local full-time health departments in the state.

Today 19 states require examination for syphilis in applicants for marriage license, 17 provide for similar tests in expectant mothers. None of these laws is over three years old, most are only one or two.[6] Other state legislatures are considering similar laws.

PNEUMONIA

The 150,000 annual deaths from pneumonia could be easily reduced by more than 25 per cent if effective serums now available were generally used. Not one patient in 20 with pneumonia now receives such serum treatment. The explanation is simple. The prevention of pneumonia mortality is an expensive job that requires special facilities and a scheme for coordinating the resources of public agencies with those of practicing physicians. Present activities in this field are generally inadequate. Only eight of the 48 states have active programs for accurate diagnosis by typing and for free distribution of serum. In 15 states, no health department laboratory facilities are available for rapid typing of pneumococci. In 29 per cent of American cities of 100,000 population and over, no provision is made for it.[4]

The new and effective weapons for the control of pneumonia, anti-serum and sulfapyridine, are in demand. Recently a program to aid the physicians in Louisiana in curtailing this disease was inaugurated in those parishes where state district laboratories are located, Madison, St. Mary, Jefferson Davis, Rapides, Ouachita and Caddo, and in addition to this, materials are being provided the Charity Hospitals in New Orleans and Shreveport to supplement their work. This enables the State Health Department to secure records of the cases of pneumonia receiving therapy in these institutions. Apparently this type of program has met with enthusiastic interest on the part of the medical profession of the state.

MATERNAL AND CHILD HEALTH

Maternal and infant mortality statistics for 1938 have just been received. Remark-

able reductions, as shown by the following table, have been attained in a period in which every state, in cooperation with the Federal Government, has been actively working for the improvement of maternal and child health conditions.

Year	MATERNAL MORTALITY Rate**		INFANT MORTALITY Rate*	
	U. S.	Louisiana	U. S.	Louisiana
1938	44.0	59.0	51.0	67.1
1937	49.0	72.0	54.0	65.6
1936	57.0	87.0	57.0	71.9
1935	58.0	79.0	56.0	69.4
1934	59.0	79.0	60.0	69.1
1933	62.0	84.0	58.0	70.1
1932	63.0	81.0	57.6	64.8
1931	66.0	86.0	61.6	65.9
1930	67.0	100.0	64.6	78.2
1929	70.0	99.0	67.6	74.0

*Deaths in the first year of life per 1,000 live births.
**Deaths per 10,000 live births.

The following table shows the per cent of deliveries for 1938 in hospitals with physicians in attendance, not in hospitals with physicians in attendance, and with midwives in attendance, for the United States and Louisiana.

	PHYSICIANS			NOT SPECIFIED
	In Hospitals	Not In Hospitals	MIDWIVES	
United States	48.0	41.8	9.5	0.6
Louisiana	31.1	32.6	36.2	*

*Less than 1/10 of 1 per cent.

There is urgent need for proper education of the public as it relates to public health values — the public health value of early diagnosis and treatment of cancer, syphilis, tuberculosis, and other diseases; and increased information should be brought to light concerning the true value of the periodic health examination. Similarly, the damaging effects to the public from quacks should be exposed.

The next chapter in public health services is now being written and will become a reality when, and not until, the public as a whole realizes the staggering economic loss due to preventable illness. According to the report of the Technical Committee on Medical Care, the cost of illness and premature death in this country amounts annually to about ten billion dollars, including in this total the combined costs of health services and medical care, loss of wages through unemployment resulting from disability and the loss of potential future earnings through death. On an average day of the year, there are 4,000,000 or more persons disabled by illness. Every year 70,000,000 sick persons lose over 1,000,000,000,000 days from work or customary activities.[8]

CONCLUSION

Let me make a plea for united medical and lay leadership so as to coordinate our public health and medical needs for the best interest of all concerned on a community wide basis.

REFERENCES

1. The Public Health Program Under Title VI of the Social Security Act. Supplement No. 126 to the Public Health Reports, United States Government Printing Office, Washington, D. C., 1937.
2. Unpublished data, Federal Security Agency, Washington, D. C., Jan. 1940.
3. Extent of Rural Health Service in the United States, 1927-1931, Public Health Reports, 46:2173, 1931.
4. The Nation's Health. United States Government Printing Office, Washington, D. C., 1939.
5. White, Robt. H.: Ostrich or eagle? Health Briefs, 17:2, 1940.
6. Brown, Earle G.: Some gains against syphilis, Nassau Health, 2:7, 1940.
7. Bureau of the Census, Department of Commerce, Vital Statistics—Special Reports 8:28, 1939, and 8:51, 1930.
8. The Need for a National Health Program, Report of the Technical Committee on Medical Care. Interdepartmental Committee to Coordinate Health and Welfare Activities, Washington, D. C., 1938.

DISCUSSION

Dr. R. W. Todd (New Orleans): Dr. Sharp has given us a clear picture of the progress made in health work in the United States, possible through the cooperative efforts of Federal, State, and local agencies. The point is made that the responsibility of proper health administration rests with the state health departments, since all Federal funds allocated to the states for health work become state funds, and all persons employed within the state and local units are state and local employees, selected, appointed and paid by state or local authorities. As a protective measure, the Federal agencies have required of us certain protection, in that we are required to use the merit system, and this is only to protect the Federal agencies,—that is by way of discussion. Recently, however, in the United States, the Public Health Service and the Children's Bureau, the two agencies that contribute to state health work, have made it compulsory for every state receiving these grants to set up a merit system for employees, new health workers, and qualify those already employed. All persons receiving their pay, in part or in full from Federal grants made to the states, come under the system. The requirements will eventually result in qualified persons being attracted

to health work through improved standards of employment and tenure of office. Today, we are in need of medical men, we are seriously in need of them and do not have them. We have at least five health physicians today who would meet with the requirements. It has not been easy to get qualified health workers for our central staff, and the training of new health workers is being undertaken in one of our units that has been organized by special grants to serve as a field observation base. Further training of these individuals will be given in neighborhood schools of public health as quickly as possible. I may say that we set up approximately $20,000 for training them, and we have perhaps spent $50,000 in training personnel, so that we are giving qualified workers to carry on public health work.

With 42 of 62 parishes provided with health units, employing 300 to 400 health workers, we have gone a long way in Louisiana in promoting rural health work, but we still have 22 parishes without health units. By the way, Dr. Sharp mentioned that we were probably serving 50 per cent of our population; we are serving more than 70 per cent. Only 22 parishes in the state are not organized, and more than 70 per cent are being served with full time health units. We have not lost a single unit since 1928, and we have strengthened the units already existing.

Additions have been made to our central staff to promote tuberculosis work, crippled children's work; maternal and child health activities have been inaugurated in all our units; and a beginning has been made in pneumonia control. And I may say this, we have aided physicians in the treatment. There were between 700 and 1000 cases of pneumonia this past year, with a very marked reduction in mortality. But little or nothing has been attempted by the state health department for developing cancer, mental hygiene, industrial hygiene, or malaria programs. In view of the shortcomings of the state health departments, not only the fundamental health functions already introduced, but their care, I feel that we should improve our health administration along this line before attempting to qualify for administering a program of subsidized medicine for the indigent and semi-indigent, if and when a program is developed.

EARLY RESULTS IN THE TREATMENT OF CANCER OF THE SKIN BY THE METHOD OF CHAOUL

STAKELY HATCHETTE, M. D.
LAKE CHARLES, LA.

The destruction of cancer cells by any type of radiation therapy, no matter whether it be x-radiation or the gamma rays of radium, is a result of the fact that the absorption of radiation by living tissues causes changes in them that may vary in degree anywhere from temporary injury to the tissue cells to cell death. The amount of radiation required to destroy cancer, however, is often so great as to cause sufficient damage to the normal tissues surrounding the growth that they are injured beyond recovery. The ideal attainment toward which all of our efforts are directed is, obviously, to improve the results of radiation therapy to the point where a malignancy may be destroyed in its entirety and, at the same time, to give as little radiation as possible to the surrounding healthy tissues so that they may receive a minimum amount of damage.

In an attempt to make a very brief summary of the advances of radiation therapy, it may be said that in the beginning, before much was known concerning the biologic response of tissues to radiation, massive doses of rays were given. As time passed and knowledge increased, it was found that more and more radiation could be given with less harmful effects until Pfahler's "saturation method" evolved. This implied that the tissue should be irradiated to the limit of normal tissue tolerance (saturation) either by single or multiple doses, in the region of the malignant disease, and that the effect should be maintained by additional continuous or fractional irradiation over a period long enough to destroy all of the malignant cells or arrest their growth. The most recent outstanding contribution to the method of administering radiation is that advanced by Coutard, in which numerous, very small doses of radiation are given to the tissues. With this method of fractionated doses, the total dose which the tissue can stand without damage is many times greater than the massive dose such as was given in the early days of radiation therapy. The Chaoul method, with which this paper is concerned, is not so much a new method of dosage of the tissues, for dosage may be administered according to the massive technic, by follow-

ing Pfahler's "saturation method", or by the method of Coutard. This newest method of treatment is largely concerned with a new device for the treatment of tissues and the method of its application.

The improved methods of administering radiation therapy have been based upon the advancements in the fields of radio-physics and radio-biology which have demonstrated that it is necessary to use hard, penetrating rays of high intensity in order to convey lethal doses into deep-seated growths, and that the opposite conditions should prevail in treating growths which extend only a centimeter or so beneath the surface. In the treatment of these superficial growths the primary object is to do as little damage as possible to the normal tissues underneath the tumor (the tumor bed), yet give a large, lethal dose into the tumor. In other words, a large dose should be given into the tumor, but the intensity of the beam of radiation should decline so sharply as to be relatively harmless to the healthy tissues underneath the tumor. This requires a low voltage or low intensity beam in which there is a very rapid decline in intensity so that only a small percentage depth dose is obtained.

Thus, it becomes obvious that high voltage x-radiation is not suited to the treatment of cancers of the skin because of the deep destructive powers of this type of beam and the superficial location and shallow extent of this type of cancer. Radium has been used in the treatment of superficial cancers and has given excellent results. In the light of recent advances in radio-biology it would seem that such results as are obtained with radium are not due so much to the shortness of the gamma rays obtained from this source, but rather to their distribution in the tumor, the proximity of the source of radiation, and the rapid decline in the depth intensity obtained by such proximity. Probably the most ideal distribution of radium consists in the introduction of radium needles or radon seeds within the tumor itself, in which case the source of irradiation comes from within the tumor. In such a case, the intensity of the radiation would follow the inverse square law and would decrease inversely with the square of the distance and, while the tumor would receive a large dosage, the rapid decline in the intensity of the radiation would tend to cause minimal harmful effects in the healthy tissues surrounding the tumor.

There are, however, certain disadvantages connected with the use of radium. The technics of its application are quite complicated, it is expensive, and, about the eyes and certain other parts of the body, it is extremely difficult to obtain adequate protection of the surrounding normal tissues. Because of the scarcity of radium and the fact that it was so expensive in that country, the Germans developed an x-ray tube that permitted a very short distance to be obtained between the target of the tube and the tissue and which gave a distribution of x-rays within tissues which was practically identical with the distribution of gamma rays of radium under similar circumstances.

PERSONAL EXPERIENCES

I have been using one of these x-ray machines permitting of a very short target-skin distance for a period of more than two years and the results obtained during this period have been highly gratifying. It has seemed to have certain advantages over radium in that it is simple to operate, the technic of its application is not at all difficult, it is inexpensive to use, its high "r" output allows the desired dosage to be given in terms of seconds rather than of hours and so permits of handling of more patients, and the x-rays generated have apparently been as lethal to tumor cells as the gamma rays of radium. The fact that the radiation delivered by the tube can be "spot-lighted" in various sized beams, depending upon the size cones used, has been a very great convenience, for it has not been nearly so difficult to obtain adequate protection of the surrounding normal tissues as has been the case where radium has been used under similar circumstances.

Such treatment has been given to 73 patients during the past two years. In this group of patients, 126 malignant lesions of

the skin were treated. The results obtained to date have compared favorably with similar early results obtained by the writer through the use of radium in the treatment of skin cancers which have been comparable to the group herein reported (table 1). It is realized, of course, that two years is not a sufficient length of time from which definite conclusions might be drawn, but it is considered to be sufficient to permit of impressions being formed, and it is these impressions that are being reported. In the treatment of cancers of the skin, these early results would seem to indicate that the Chaoul type of therapy may be equally as effective as radium and, if time proves these impressions to be correct, it has certain definite advantages in the saving of time, the simple technic and the ease of protecting the surrounding tissues. It might also be pointed out that there is less danger to the operator's hands when the beam may be directed away from them than is the case in handling radium which sends gamma rays equally in all directions.

Five of the 73 patients were treated by giving them one single massive dose. This was done because these patients lived in other communities some distance away and because it would have been extremely difficult for them to make frequent trips to receive treatments. Thus, the massive dose has been given only in cases where it was considered necessary (table 1, nos. 1, 7, 31, 48, and 70). None of these patients have shown any evidence of return of the disease up to the present time, but they have shown more of a tendency toward the formation of telangiectases at the sites of the original lesions than has been the case in any of the other patients.

Another small group of six patients (table 1, nos. 4, 20, 27, 29, 38, and 40) was treated by giving doses of 500 "r" (in air) locally three times a week until a total dosage of 5000 "r" had been given. These patients have shown no tendency toward the formation of telangiectases, and scar formations have been no different from what might be expected from healing of similar sized lesions due to causes other than cancer and treated by other means. In fact, recent examinations of these patients showed the sites of some of the smaller lesions to be difficult to locate.

The remaining 62 patients were treated by giving them doses of 1000 "r" per day for four to five consecutive days. The number of treatments given has depended upon the coloring of the patient's skin and the size and pathologic diagnosis of the lesion treated. All of those lesions diagnosed as squamous cell carcinomas or malignant melanomas have received a minimum of 5000 "r", the size of the lesion or the type of the patient's skin not having been taken into consideration. Those patients with brunette skins and basal cell carcinomas smaller than one centimeter in diameter have been given 5000 "r", while those with this type skin and lesions one centimeter in diameter or larger have been given 4000 "r". Those patients with blonde skins and basal cell lesions have been given only 4000 "r", none of the lesions having been larger than one and one-half centimeters in diameter in this group. Up to the present time, there has been no essential difference in the appearance of the skins of those patients who received the 1000 "r" daily doses as compared to the small group of six patients who received the 500 "r" doses three times a week, so that all patients are now given the 1000 "r" daily doses. During the past two years there has not been a recurrence of a single lesion that was treated, but this may be due, of course, to the fact that two years can hardly be considered a follow-up period of sufficient length from which to draw conclusions.

SUMMARY

The x-radiation delivered by the Chaoul machine would seem to be almost ideal for the treatment of malignant lesions of the skin. The distribution of dosage within the tissues seems to be identical with that of the gamma rays of radium, the rapid decline in intensity spares the healthy tissues beneath the tumor from receiving a lethal dosage, and the technic is simple. Seventy-three patients have been treated

by this method during a period of two years and uniformly good results have been obtained. While a sufficient time has not yet elapsed to warrant the formation of any conclusions, it is believed that the impressions obtained following the treatment of these patients is of definite value and that the next few years will see an increase in the number of patients treated by this new method.

TABLE 1

No.	Age	Sex	Date	Diagnosis	Duration	Result
1	55	M	1/31/39	Basal cell epithelioma of left ear	2 yr.	Healed
2	45	M	10/ 8/40	Squamous epithelioma lower lip	4 mo.	Healed
3	68	M	7/ 8/40	Basal cell carcinoma posterior aspect left hand	3 yr.	Healed
4	43	M	1/ 4/39	Basal cell carcinoma left ear	3 yr.	Healed
5	57	M	6/22/40	Malignant melanoma left side of face	4 wk.	Healed
6	67	M	4/ 3/39	Squamous epithelioma outer edge left external auditory canal	6 mo.	Healed
7	43	F	2/ 9/40	Basal cell carcinoma left side of face	3 mo.	Healed
8	68	F	9/ 4/39	Malignant melanoma right temple	6 wk.	Healed
9	78	M	5/11/39	Multiple basal cell carcinomas of face	6 yr.	Healed
10	80	M	7/22/39	Squamous epithelioma right temple	4 yr.	Healed
11	55	M	9/ 9/40	Multiple basal cell carcinomas of face and external ears	2 yr.	Healed
12	70	F	9/ 9/39	Basal cell carcinoma inner canthus right eye	9 mo.	Healed
13	83	F	7/11/40	Multiple basal cell carcinomas of forehead	3 yr.	Healed
14	57	M	7/29/40	Squamous epithelioma left temple	3 mo.	Healed
15	65	F	5/20/40	Multiple basal cell carcinomas of neck and right hand	1 yr.	Healed
16	57	M	2/ 5/40	Basal cell carcinoma of nose	1 yr.	Healed
17	72	M	2/28/39	Basal cell carcinoma left cheek	2 yr.	Healed
18	64	M	1/15/40	Basal cell carcinoma right cheek. Squamous cell epithelioma lower lip	3 yr. 5 mo.	Healed Healed
19	54	M	9/ 9/40	Squamous carcinoma lower lip	4 mo.	Healed
20	43	F	1/ 1/39	Squamous carcinoma upper lip	3 mo.	Healed
21	65	F	6/ 5/40	Squamous epithelioma lower left leg	2 mo.	Healed
22	69	F	3/18/39	Squamous epithelioma right temple	3 yr.	Healed
23	76	M	4/16/40	Basal cell carcinoma left nasofacial groove	6 mo.	Healed
24	56	F	5/29/39	Basal cell carcinoma right side of nose	1 yr.	Healed
25	69	M	8/ 5/40	Squamous epithelioma left side of face	6 mo.	Healed
26	55	F	11/13/39	Basal cell carcinoma left side of face	2 yr.	Healed
27	47	F	8/31/38	Basal cell carcinoma right side of nose	1 yr.	Healed
28	65	M	12/ 5/39	Basal cell carcinomas inner canthi both eyes	2 yr.	Healed
29	57	M	10/26/38	Basal cell carcinoma right cheek	2 yr.	Healed
30	65	F	7/ 8/40	Basal cell carcinomas left temple and forehead	2 yr.	Healed
31	71	M	12/ 6/38	Squamous epithelioma angle right jaw	4 mo.	Healed
32	65	M	8/ 5/40	Squamous epithelioma right temple	5 mo.	Healed

No.	Age	Sex	Date	Diagnosis	Duration	Result
33	45	M	4/ 9/40	Squamous epithelioma left side of chin	5 wk.	Healed
34	58	F	7/24/39	Malignant melanoma posterior aspect of neck	6 wk.	Healed
35	48	M	10/ 7/40	Basal cell carcinoma left ear	8 mo.	Healed
36	70	M	3/18/40	Basal cell carcinoma left temple	1 yr.	Healed
37	64	M	5/10/39	Basal cell carcinoma posterior aspect right ear	1½ yr.	Healed
38	79	F	10/18/38	Basal cell carcinoma left side of nose	2 yr.	Healed
39	53	M	3/11/40	Squamous epithelioma lower lip	4 mo.	Healed
40	69	M	10/29/38	Multiple basal cell carcinomas of face	4 yr.	Healed
41	63	F	9/ 7/39	Basal cell carcinoma right side of nose	10 mo.	Healed
42	76	M	3/18/40	Multiple basal cell carcinomas of face	3 yr.	Healed
				Squamous epithelioma of right temple	6 mo.	Healed
43	48	M	10/22/40	Basal cell carcinoma left cheek	1 yr.	Healed
44	42	M	9/ 9/40	Squamous epithelioma lower lip	6 mo.	Healed
45	43	F	2/26/40	Basal cell carcinoma right lower eyelid	6 mo.	Healed
46	82	F	4/16/40	Basal cell carcinoma right cheek	3 yr.	Healed
47	65	M	11/28/39	Basal cell carcinoma left side of nose	1 yr.	Healed
48	77	F	1/16/39	Malignant melanoma left face	6 mo.	Healed
49	56	M	10/18/39	Basal cell carcinoma outer edge left auricular canal	6 yr.	Healed
50	60	F	7/ 8/40	Multiple basal cell carcinomas left side of face	3 mo.	Healed
51	82	M	9/ 9/40	Basal cell carcinoma bridge of nose	9 yr.	Healed
52	68	F	2/ 6/39	Squamous epithelioma upper lip	3 mo.	Healed
53	75	M	4/15/40	Basal cell carcinoma outer canthus right eye	2 yr.	Healed
54	52	M	7/14/39	Basal cell carcinoma outer canthus left eye	6 yr.	Healed
55	65	M	10/ 2/39	Squamous epithelioma lower lip	3 mo.	Healed
56	65	M	12/ 4/38	Basal cell carcinoma outer canthus right eye	2 yr.	Healed
57	38	M	6/10/40	Squamous epithelioma lower lip	3 mo.	Healed
58	60	M	5/ 6/40	Basal cell carcinoma left ear	6 mo.	Healed
59	62	M	10/24/39	Basal cell carcinoma right side forehead	1½ yr.	Healed
60	64	M	7/10/39	Basal cell carcinoma inner canthus left eye	6 mo.	Healed
61	58	M	10/15/38	Basal cell carcinoma right ear	9 mo.	Healed
62	62	M	10/14/40	Basal cell carcinoma left side of nose	6 mo.	Healed
63	37	M	2/ 4/39	Basal cell carcinoma upper lip	6 wk.	Healed
64	48	M	6/10/40	Basal cell carcinoma left side of nose	3 yr.	Healed
65	64	F	9/10/40	Squamous epithelioma of scalp	6 mo.	Healed
66	46	M	9/18/39	Squamous epithelioma lower lip	3 mo.	Healed
67	80	F	6/17/40	Basal cell carcinoma right cheek	3 yr.	Healed
68	60	M	8/19/40	Squamous epithelioma lower lip	5 mo.	Healed
69	48	F	10/14/38	Basal cell carcinoma right side of nose	1 yr.	Healed
70	57	F	1/ 2/39	Basal cell carcinoma right cheek	2 yr.	Healed
71	55	F	2/27/39	Basal cell carcinoma left side of nose	6 mo.	Healed
72	40	F	1/10/39	Basal cell carcinoma forehead	6 mo.	Healed
73	76	F	9/30/40	Squamous carcinoma right side of face	6 mo.	Healed

STUDIES WITH ANTIGENS

IX. TREATMENT WITH PURIFIED EXTRACTS OF HOUSE DUST

B. G. EFRON, M. D.†
C. H. BOATNER, PH. D.‡
AND
PETER EVERETT, M. D.†
NEW ORLEANS

Skin tests performed with solutions of house dust purified according to the technic reported by Boatner, Efron, and Dorfman[1,2] showed that purified house dust was neither a "primary irritant" nor an irritating extract in the concentrations used. Reactions to skin tests performed with these extracts were found to be both allergic and diagnostic.[3,4]

PROCEDURE

This report is based on the results of treatment of 72 patients with asthma or hay fever, or both, whose symptoms were present from the first cool weather (usually in early September) to the onset of hot weather (usually in the latter part of June). All of these individuals were free of symptoms during hot weather. Each patient gave positive reactions to skin tests performed with purified house dust extracts. In all of these patients, treatment with hyposensitizing injections was continued for nine to eighteen months.

Solutions of house dust which had been purified by fractionation with organic liquids and by dialysis were used for injection. Concentrations of 2.00, 1.00, 0.50, 0.05, 0.005, and 0.0005 per cent solutions of purified house dust were used. Solutions were serial dilutions (made with normal saline containing 0.4 per cent phenol by weight) of 5.00 per cent solutions of purified house dust. Only the 5.00 per cent solutions were preserved in 50 per cent glycerin. Consequently, the 1.00 per cent house dust solutions contained 10.00 per cent glycerin by volume; the 0.50 per cent solutions contained 5.00 per cent glycerin by volume.

Hyposensitization was started with 0.10 c. c. of the 0.0005 per cent solution. The injection sites were the outer aspects of the arms. Injections were given subcutaneously as deeply as possible with 26-gauge, one-half inch needles. Doses were increased according to the patient's tolerance. Treatment was scheduled to be given every other day with the 0.0005 and the 0.005 per cent solutions; twice weekly with the 0.05 per cent solution; every four to five days with 0.50 per cent solution; every seven days with the 1.00 and 2.00 per cent solutions. The local reaction produced by an injection was used as the guide to the subsequent dose. Doses were increased when local reactions were small or absent, and were repeated when local reactions were large or when they lasted for twenty-four hours or more. An injection was not given until all of the local reaction produced by the previous injection had subsided. Whenever a constitutional reaction occurred, specific hyposensitization was postponed to at least twenty-four hours after the reaction had subsided. Injections were then resumed with a greatly reduced dose, and thereafter they were increased more gradually. All maintenance doses were given at seven day intervals.

DISCUSSION

The patients were given skin tests not only with purified extracts of house dust, but also with giant ragweed pollen, short ragweed pollen, Bermuda grass, Johnson grass, and Dallis grass pollen extracts. All reacted to the tests with house dust. Nine patients also showed positive reaction to the grass pollens. None reacted to the ragweed pollens. The grass pollen reactions were of no concurrent clinical significance, because these patients were free from symptoms during the major portion of the pollinating season of the grasses. In this locality, allergic symptoms that are precipitated by the inhalation of grass pollens occur from mid-May to mid-September, the most pronounced symptoms being produced in June, July, and August.

Meteorologic conditions act as exciting factors in precipitating attacks of asthma and hay fever. Sudden changes of weather and cool or damp weather were recognized by 43 patients in this series as adversely

†From the Division of Allergy, Touro Infirmary.
‡From the Department of Chemistry, Newcomb College, Tulane University, New Orleans, La.

affecting their symptoms. Patients in whom specific treatment resulted in marked improvement were affected slightly or not at all by weather conditions which previously were unfavorable to them; those who were moderately improved were much better able to tolerate inimical weather than they had been prior to treatment.

The initial dose of 0.10 c. c. of the 0.0005 per cent solution was tolerated by all the patients in this study. Local reactions were frequent during the course of treatment. Eighteen systemic reactions of varying severity occurred in 12 patients. These reactions followed the administration of the following doses (in milligrams of purified house dust): 0.005, 0.015, 0.175 (2), 0.20, 0.50 (3), 0.75, 1.00 (3) 1.25 (4), 1.50 (2). Most of the systemic reactions occurred near the level of the maintenance dose. In three patients, the dose which produced a constitutional reaction when it was first administered produced a systemic reaction when it was again reached. In the other patients, the dose which produced a systemic reaction when it was first given did not cause constitutional symptoms when it was again reached.

The maintenance dose sufficient to protect the patient varied, as is shown in Table 1, in which are included only those patients who were markedly or moderately improved.

TABLE 1
MAINTENANCE DOSES OF MARKEDLY AND MODERATELY IMPROVED PATIENTS

No. cases	Dose in milligrams purified house dust*
1	.01
4	.10
3	.15
4	.25
4	.35
5	.50
1	.60
3	.75
7	1.00
2	1.25
3	1.50
5	1.75
4	2.00
3	2.50
1	2.75
4	3.00
1	3.25
1	3.50
3	4.00
1	4.50
1	10.00

* One c. c. of the 2.00 per cent solution contains 20 mg. purified house dust, one c. c. of the 1.00 per cent solution 10 mg., one c. c. of the 0.50 per cent solution 5 mg.

Patients complained of little or no discomfort from hypodermic injections of the purified extracts, because in a large majority of the cases, the amount of purified house dust necessary for the maintenance dose was given with the 0.50 per cent solution. This solution contains only 5.00 per cent glycerin when the 5.00 per cent solution of purified house dust is preserved in 50 per cent glycerin. Solutions containing 10 per cent glycerin or less cause little discomfort, and solutions containing 20 per cent glycerin are only slightly irritating.

Complete objectivity is not possible in the evaluation of the therapeutic results obtained. Non-specific factors, such as weather conditions, infections, and intercurrent diseases may influence the symptoms. The course of the disease itself may be remittent or intermittent. It is impractical, though not impossible, to obtain a control series. Estimates of improvement, made after specific therapy had been administered for four to eight weeks, were based on the following criteria:

Marked improvement—symptoms completely or almost completely relieved.

Moderate improvement—attacks very much less frequent or less severe, or both, and attacks readily brought under control.

Slight improvement—attacks less frequent or less severe, or both, and attacks not necessarily readily brought under control.

Attacks were considered readily controllable if they responded to oral medication, inhalation, or intranasal medication, or to a small hypodermic dose of epinephrin. Patients who required repeated hypodermic injections of epinephrin or intravenous injections of aminophyllin were not estimated as moderately or markedly improved, regardless of the reduced frequency of their attacks.

Table 2 shows an analysis of the therapeutic results. Patients markedly and moderately improved were considered as definitely relieved; those slightly improved

or unimproved were classified as exhibiting unsatisfactory therapeutic results. Instructions to patients for the avoidance of house dust contact were intentionally omitted; therefore, these results represent not optimal treatment (which includes environmental control of contact with house dust and measures directed against other sensitivities), but the effect of specific hyposensitization only.

TABLE 2
ANALYSIS OF THERAPEUTIC RESULTS

Improvement	No. cases	Per cent	Standard error of percentage
Marked	37	51.4	5.9
Moderate	24	33.3	5.5
Slight	6	8.3	3.3
No	5	7.0	3.0
Total	72	100	

Allergic skin reactions were considered presumptive evidence of specific sensitization to house dust. Additional evidences of such sensitization are afforded by specific alterations in sensitivity, the amelioration or disappearance of symptoms after complete exclusion of house dust, exacerbation or reappearance of the manifestations after re-exposure to house dust, and the improvement of symptoms through specific therapy with house dust.[5]

Specific alterations in sensitivity to house dust (specific local and systemic reactions) were changes observed in patients of this series. Because of the ubiquitous nature of house dust, the effects of complete exclusion of house dust and of re-exposure to it cannot be determined. Specific hyposensitization produced amelioration of symptoms in a large majority of the patients in this series.

SUMMARY

1. Seventy-two patients sensitive to house dust were treated by specific hyposensitizing injections of purified house dust extracts.

2. During the course of treatment, local reactions occurred frequently. Eighteen constitutional reactions of varying severity occurred in 12 patients.

3. Hypodermic injections of purified house dust extracts caused practically no discomfort, although the concentrated extract was preserved in 50 per cent glycerin.

4. Definite relief of symptoms was obtained by hyposensitization only in 84.7 ± 4.2 per cent of cases (marked relief in 51.4 ± 5.9 per cent, moderate relief in 33.3 ± 5.5 per cent.)

5. House dust is established as an important etiologic factor in allergic diseases.

REFERENCES

1. Boatner, C. H., Efron, B. G., and Dorfman, R. I.: The purification of house dust extracts, Science, 91:389, 1940.

2. Boatner, C. H., Efron, B. G., and Dorfman, R. I.: Studies with antigens: III. The purification of house dust extracts, J. Allergy, 12:176, 1941.

3. Efron, B. G., Boatner, C. H., and Pabst, M. R.: Studies with antigens: VI. The significance of scratch test reactions to purified house dust extracts, J. Invest. Dermatol., 3:401, 1940.

4. Efron, B. G., Boatner, C. H., and Pabst, M. R.: Studies with antigens: The significance of reactions to intracutaneous tests performed with extracts of purified house dust (to be published).

5. Sulzberger, M. B., Dermatologic Allergy, Chas. C Thomas, Baltimore, 1940.

SULFANILAMIDE AND SULFAPYRIDINE

PHARMACOLOGY AND TOXICOLOGY*

ERWIN E. NELSON, M. D.†
NEW ORLEANS

In any discussion of chemotherapeutic agents there are several angles of interest. Of primary concern is of course the reaction of the invading organism to the therapeutic agent. It is essentially this phase that the other essayists will discuss this evening. Actually, I take it, they will speak of their clinical results. This means only that they will use their patients as indicators of the reactions of the invading organisms to the drug under discussion. In the few minutes allotted to me, I wish to consider some of the reactions of the host to sulfanilamide and sulfapyridine.

ABSORPTION

In reviewing the pharmacology of any substance we must be concerned with its entry into the body, how it is then distributed, what chemical or physical changes

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†From the Department of Pharmacology, Tulane University of Louisiana, School of Medicine.

in it occur, and how it is gotten rid of. Sulfanilamide, though not a very soluble substance, is readily absorbed from the gastrointestinal tract. Little absorption occurs from the stomach, but absorption from the intestine is both fairly rapid and complete. Marshall, giving doses of 0.1 gm. per kilo in gelatine capsules to dogs, found as little as 1 per cent remaining in the intestine at the end of four hours. Blood concentration time curves in humans indicate a similar practically complete absorption in from three to four hours. This ease of absorption would, under most conditions, seem to eliminate the necessity for any form of parenteral administration. However the condition of the patient may require the use of other than the oral route. Sulfanilamide is sufficiently soluble that it may be given into the subcutaneous tissue in 1 per cent solution. More recently hypodermoclysis of a very dilute solution has been recommended. The absorption of sulfapyridine is not so satisfactory. All of the earlier studies emphasize its uncertainty, and the lack of parallelism between oral dosage and blood concentration. This difficulty of absorption has led to some misconceptions with respect both to effectiveness and to toxicity. Recently there has been introduced a sodium sulfapyridine for parenteral therapy. Because of the high degree of alkalinity of this preparation, vasomotor and respiratory depression are to be anticipated on intravenous administration. Sulfathiazole seems to resemble sulfanilamide rather than sulfapyridine.

DISTRIBUTION

After absorption these substances have a wide distribution throughout the body. Since sulfanilamide was introduced first, it has been most extensively studied. After absorption it has a distribution similar to that of urea or of alcohol, being approximately proportional to the water content of the tissues. It occurs in all the secretions, saliva, gastric juice, pancreatic juice, tears, in the milk, in the secretion of the cervical glands, and in the cerebrospinal fluid. It passes the placenta and occurs in fetal blood. In a general way sulfapyridine is distributed in a similar fashion. The experimental findings are not so regular, and in one respect there seems to be a definite difference. Marshall and Litchfield have found some concentration of sulfapyridine in both the liver and the lungs. The significance of this observation is not yet apparent.

EXCRETION

The absorbed sulfanilamide or sulfapyridine circulates in the blood in part in the free form, partly acetylated. This is true both for man and for most of the laboratory animals, except the dog, which apparently lacks the ability to acetylate these compounds. There is some evidence that acetylation occurs in the liver. The acetylated compounds are apparently inactive therapeutically. Aside from this partial conversion there is no evidence of a capacity of the body to break down or destroy sulfanilamide or sulfapyridine. Excretion is to all intents and purposes solely by the kidneys, and recovery of administered material is practically complete.

This acetylation might be looked on as a detoxication process, in which case the derivatives should be less toxic than the parent substance. Marshall and Litchfield showed that administration of the sodium salt of acetylsulfanilamide to two dogs in amounts sufficient to raise their blood levels to the very high values of 35 and 40 milligrams per cent respectively, was without effect. Similar concentrations of the sodium acetylsulfanilamide were fatal. Acetylsulfapyridine is very insoluble, and as the glomerular filtrate from the blood plasma is concentrated in its passage through the tubules, crystals are deposited, leading to serious and even fatal disturbances of renal activity. Many reports, both clinical and experimental, have called attention to this feature which is characteristic of sulfapyridine.

MODE OF ACTION

So much for the absorption, distribution, and excretion. More interesting than these features, would be an explanation of the mode of action if it were possible to give

one. It seems to be the consensus at present that the fundamental action is bacteriostatic rather than bactericidal. It is generally held that the defense mechanisms of the host must participate in the recovery from infection, but there is little evidence that these mechanisms are directly stimulated by the drug. We cannot review at this time the work that has given rise to this conception. If correct, however, it certainly justifies the clinical practice of attempting to get a high blood concentration early, and helps to explain why such treatment is most likely to be effective.

TOXICITY

Coming now to the matter of toxicity, I take it that my task ideally would be to group and explain the various clinical observations that have been made. Unfortunately it is not yet possible to do this. It has always been a drawback in the search for chemotherapeutic agents, that the host as well as the invaders, be they bacteria, protozoa, or worms, is susceptible to the action of the poisons used. As a matter of fact, until the introduction of the group under discussion, the difficulty has been that the tissues of man have been more susceptible to possible therapeutic agents than the organisms of plant nature from whose presence he might be suffering. While sulfanilamide and its relatives do for the first time make possible the effective treatment of bacterial types of invaders, there is still evidence that the therapeutic agent is not completely specific for the invader.

The long list of toxic actions of sulfanilamide and its relatives I shall not review. The clinical manifestations of toxicity are better known to you than to me. Laboratory investigations and clinical impressions with respect to the relative toxicity of sulfanilamide as compared to sulfapyridine have been complicated by failure to recognize the differences in absorption noted above. The earlier reports on sulfapyridine indicated a lesser toxicity than that of sulfanilamide. However, when the two drugs are given to the production of equivalent blood concentrations, it seems that sulfapyridine is clearly the more toxic of the two. The most satisfactory study of the clinical incidence of toxic effects that has come to my notice is that of Brown, Thornton, and Wilson, in a recent article in the Journal of the American Medical Association. Two series of 100 patients each, treated essentially in the same fashion as indicated by the blood concentrations, were compared with respect to the frequency and severity of symptoms. Toxic manifestations were classified as mild and severe. Of the mild symptoms, anorexia, nausea, vomiting, were much more frequent after sulfapyridine; dizziness, headache, cyanosis, after sulfanilamide. Of the more severe manifestations, delirium, leukopenia and granulocytopenia, were more frequent after sulfapyridine. The symptoms referable to the kidney, oliguria, hematuria, anuria, pain in the loins were restricted practically to sulfapyridine. Anemia, drug rashes, drug fever, occurred with more or less equal frequency after the two substances.

CLASSIFICATION AND TOXIC SYMPTOMS

The symptoms just enumerated by no means include all that have been noted. It will perhaps serve better to attempt to make some sort of classification. Dizziness, headache, ringing in the ears, vertigo, feelings of depression,—these can all be referred to an action on the central nervous system. The nausea and vomiting that may be so disturbing are generally believed in part at least to be due to a central action. Parenteral therapy does not completely avoid them. On the other hand the incidence of these symptoms is said to be reduced by suspending sulfapyridine in mucilage of tragacanth. This would seem to indicate that local irritation played a part. For the reputed effect of nicotinic acid in reducing such unpleasant effects there seems to be no explanation. Peripheral neuritis, reported occasionally, has also been produced experimentally in dogs.

Most important of the toxic actions are probably those upon the blood. For the agranulocytosis there seems to be no satisfactory explanation. It has not been possible, so far as I am aware, to produce this

condition in experimental animals either with the sulfanilamide group or with other substances such as amidopyrine. In the case of the anemias, it is fairly clear that repeated administration is apt to involve to some degree the red cell forming tissue. Recently Richardson has reported from Marshall's laboratory that an anemia with reticulocytosis can regularly be produced in white mice by feeding either sulfanilamide or sulfapyridine in amounts sufficient to maintain a blood level of the order of that used in human therapy. In this particular work sulfanilamide was found about twice as toxic as sulfapyridine.

As to the other severe reactions, drug fever, dermatitis, hepatitis, the pharmacologist has little to offer. It has been possible to sensitize some of the laboratory animals to some members of the group; perhaps some of these reactions may fall in this group. Others are perhaps expressions of real idiosyncracy. The renal reactions I have mentioned above. Their explanation seems fairly clear, and there is at least a suggestion as to a means of avoiding them, that is, maintenance of a free flow of dilute urine by administration of large amounts of fluid.

As Long and Bliss have pointed out, if fear of the toxic reactions has prevented the indiscriminate use of these drugs, then it has had a beneficial action. To this extent and to this end the possibility of occurrence of untoward effects should not be minimized. On the other hand, for certain patients these drugs have certainly been lifesaving. To deny properly selected patients the help of specific therapy because of these possibilities is as irrational as promiscuous therapy without thought for the consequences.

CONCLUSION

I believe that every effort should be made to restrict the use of these potent substances to administration by the medical profession. At the same time I believe we owe it to the public to make certain that they understand that such an attitude is an unselfish one—one intended solely to insure that these powerful agents be properly administered.

EXFOLIATIVE DERMATITIS FROM SOBISMINOL MASS BY MOUTH

A CASE REPORT

U. S. HARGROVE, M. D.
BATON ROUGE, LA.

Sobisminol mass, the newest antisyphilitic remedy, has been in general use only a short while. It is said to be an efficient antisyphilitic drug taken by mouth as well as when given hypodermatically. As it will probably be widely used by the profession at large, it is, I believe, important that its possible dangers be pointed out. For this reason, I am reporting this case of exfoliative dermatitis.

CASE REPORT

Mrs. H. B., a white female, aged 57, was first seen April 18, 1939. History is as follows: About 27 years ago the patient took two shots of old salvarsan, having been diagnosed as having syphilis. No further treatment was taken until 1938, at which time she developed a vaginal ulcer. A Wassermann was taken, which proved strongly positive. At this time she took three shots (probably neoarsphenamine) and following the third shot, she developed what, from her description, was an extremely severe case of exfoliative dermatitis. She stated that her entire body was swollen and covered with a weeping exudate, with crusts, fissures, and severe pruritus. She was sick for three months, but finally recovered.

When I first saw her on April 18, 1939, she presented more than a dozen ham-colored, serpiginous lesions of the forearms and body, which appeared to be characteristic syphilitic lesions. The Wassermann was strongly positive. The cardiovascular and nervous systems were apparently uninvolved. Patient was given one shot of thiobismol intramuscularly. The following day she had a marked urticarial and erythematous reaction of the hands, feet, and face, with marked itching. This reaction subsided in one week. No, or slight, exfoliation occurred. The patient was then put on mercury rubs, and the skin lesions rapidly disappeared. She used the rubs from then until August, at which time she discontinued them.

On April 20, 1940, she presented a chronic ulcerated lesion of the pharynx. A biopsy showed probable gummatous lesion. Bismuth subsalicylate in oil was then started, partly because of patient's serious objection to mercury rubs. A total of six doses, 1 c. c. at weekly intervals, was given, along with iodides by mouth. Following the sixth dose, she developed fever, urticaria, and a more or less generalized erythema, with later exfoliation. The patient was not very ill at this time.

Following publication of articles in the Journal of the American Medical Association on sobisminol mass, it was decided to give this a trial, as the patient still objected to mercury rubs. On July 16, 1940, she began taking one capsule sobisminol mass three times a day, and kept this up until July 29, when she discontinued it because the capsules melted. On August 2, she presented slight edema and erythema of the fingers. These symptoms and findings increased until on August 14, she had extensive lesions of both feet and legs, both hands, lips, and eyes. There was marked edema with a weeping exudate, the formation of crusts, fissures, and severe itching. Treatment consisted of local applications and administration of large doses of sodium thiosulfate. By August 24, the acute symptoms had subsided, and extensive exfoliation was in progress. The urine at no time showed any marked pathologic variations.

COMMENT

A case of exfoliative dermatitis developing after taking sobisminol mass by mouth fortunately is apparently terminating favorably. This instance serves as a warning that a patient sensitive to bismuth intramuscularly may likewise be sensitive to sobisminol mass by mouth.

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POSTPARTURIENT INFECTION WITH PROBABLE ENDOCARDITIS, PULMONARY INFARCTION, CEREBRAL EMBOLISM, AND BILATERAL THROMBOPHLEBITIS OF THE INTERNAL SAPHENOUS VEINS

REPORT OF A CASE WITH RECOVERY

HUGO T. ENGELHARDT, M. D.†
AND
O. J. LABARGE, M. D.†
NEW ORLEANS

Although the other complications resulting from postparturient and postabortal infections of the genital tract have been discussed in great detail in our North American textbooks and literature, the pulmonary and cardiac complications following such infections have received surprisingly little attention. That such complications are not uncommon or unknown, however, is indicated by the attention given these topics by foreign authors. Gonnet, Boussillon and Joly[1] have presented two cases of severe postabortal pulmonary infarction with a thorough discussion of the symptomatology in these cases, while Ugarte and Larenas[2] have reported their observations in thirty-seven cases of pulmonary complications occurring early in the puerperium. Ramirez, Cardenas and Rodriguez[3] found anatomic evidence at postmortem of an extensive thromboendocarditis in three of twelve cases of fatal puerperal sepsis and expressed the opinion that, in all probability such pathologic findings were not uncommon in cases of severe generalized puerperal infections. Hellner[4] observed multiple small abscesses in the aortic wall in a case of septic abortion which terminated abruptly as a result of an intrapericardial aortic rupture with a fatal cardiac tamponade. It is our purpose to present at this time a case of postparturient pelvic infection with probable endocarditis, pulmonary infarction, cerebral embolism, and bilateral thrombophlebitis of the internal saphenous veins together with a brief discussion of the salient factors in the case.

CASE REPORT

Mrs. F. G., 28 year old American born housewife of Italian extraction, primipara, was admitted to the obstetric service of the Charity Hospital of Louisiana at New Orleans, on November 13, 1939, at nine-fifty in the morning in a state of active labor. She stated that for two days prior to admission, fetal movements had been absent and that a watery fluid had been draining from the vagina for twelve hours previous to admission.

A review of her outpatient record indicated that she was admitted to the obstetric clinic on June 29, 1939, was observed at regular intervals after that date, and that her preparturient progress up to the time of her admission to the hospital had been uneventful. The estimated date of delivery was November 20, 1939.

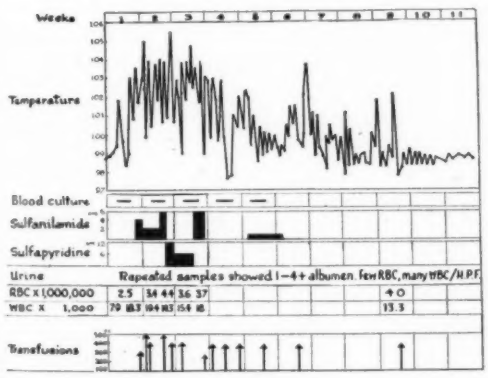
On admission to the hospital she had a temperature of 98.6° F., a pulse rate of 84 per minute, a blood pressure of 130/86, and the general physical examination was essentially negative. The pelvic measurements were within normal limits. Fetal heart sounds could not be heard and fetal movements were absent. Uterine contractions were irregular, at five to ten minute intervals and lasting from thirty seconds to one minute each time. On direct inspection, the cervix uteri was "bilaterally lacerated," moderately eroded, and a cloudy, watery discharge was draining from the cervix which was only slightly dilated. On direct questioning the pa-

†The Department of Medicine, School of Medicine, The Tulane University of Louisiana and the Charity Hospital of Louisiana.

tient denied previous pregnancies and instrumentation of any kind.

The patient continued in labor without any apparent progress until one o'clock in the afternoon of November 14, 1939. At that time another vaginal examination was performed (with careful aseptic precautions). The cervix was soft and partially dilated so further expectant treatment appeared to be indicated. At four in the afternoon the patient had a moderate chill, a sudden rise of temperature to 101.6° F. and vomited several times. No progress from an obstetric viewpoint was in evidence at seven o'clock in the evening and the patient was becoming discouraged and exhausted so delivery of a badly macerated fetus was accomplished by a breech extraction and forceps delivery of the after-coming head. Anesthesia consisted of sacral block with 40 c. c. of 1 per cent procaine solution and about 30 minutes of nitrous oxide-oxygen inhalations. A right medio-lateral episiotomy expedited delivery. The placenta was delivered intact. The obstetric record indicates that an excessive amount of hemorrhage occurred during delivery but that the blood pressure after delivery was 104/60 and the pulse was of "good quality." A program of chemotherapy with sulfanilamide was started immediately after delivery and the patient was transfused with 300 c. c. of citrated blood.

On November 17, 1939, the notation was made that the lochial discharge was "very foul" in character, and from that date onward, the temperature curve was of a septic type. (See illustration.)



Graph 1.

Blood transfusion was repeated on November 20 and on November 21. On November 21, a long blowing systolic murmur was heard over a diffuse area about the cardiac apex and the liver was palpable (but not tender) to a level of three fingers' breadths below the right costal margin. The patient was not jaundiced, and, although her expression was of the "anxious" type, she did not appear to be acutely ill.

At seven-fifteen on the morning of November 22, the patient suddenly developed a severe pain in the right posterior thorax just below the angle of the scapula. The pain was severe, persistent, and aggravated by inspiration. There was no cough and no sputum. A diminished bronchovesicular breathing with accentuation of the whispered voice was evident over the painful area, but no friction rub could be heard. In the late afternoon of the same day the patient had a severe chill with a rise of temperature to 104.2° F. The pulse rate increased to 110 per minute and a rough blowing systolic murmur (in addition to the long systolic apical murmur previously noted) became evident over a diffuse area at the base of the heart. The cardiac sounds were present but of poor quality. Except for generalized tenderness, a pelvic examination was essentially negative. Consultation was obtained with the Department of Medicine and the patient was transferred to the medical service, where she was observed by us.

No change was observed in her condition on November 23. On November 24, the episiotomy wound opened spontaneously and discharged a considerable amount of purulent material. In the afternoon of November 25, the pain in the right chest became greatly accentuated and her respiration was of a very labored character with marked pain on inspiration. At eight o'clock in the evening she was extremely ill with a temperature of 104° F., a pulse rate of 132 per minute and a respiration of 30 per minute. The cardiac rhythm was galloping in character with a split P_2 and both basal and apical systolic murmurs, as already noted. An area of dulness and bronchial breathing with moist inspiratory rales extended from the angle of the right scapula to the right base and anteriorly as far as the right anterior axillary line. Expansion was markedly limited at the right base. Roentgen ray examination disclosed a large wedge-shaped area of consolidation in the right middle lobe with a marked haziness of the surrounding lung tissue and the entire right lower lobe. These findings, together with the clinical picture, strongly suggested the presence of an extensive infarction of the right middle lobe and an extending secondary basal pneumonic process. No abdominal tenderness could be elicited and another pelvic examination gave no additional information.

In the period from November 25 to December 12, 1939, the patient was acutely ill and demonstrated little improvement despite several blood transfusions. The physical findings in the right chest persisted and, due to the septic type of temperature (see illustration), an encapsulated abscess of the right middle lobe was suspected, but two attempts at aspiration (December 5 and 7, 1939) failed to recover any purulent exudate. The cardiac murmurs persisted and became more pronounced, but petechial hemorrhages were not observed and repeated blood cultures were negative. From December 7 to 28, 1939, the patient received

a number of additional blood transfusions and made a slow but gradual improvement.

On the morning of December 28, 1939, the patient complained that she was unable to move her left upper extremity and that the entire left arm was numb and tingling. Examination disclosed a paralysis of the left lower face, a deviation of the tongue to the left, a complete flaccid paralysis of the entire left arm and a marked loss of sensation over the entire left arm. Her sensorium was entirely clear and no other change was noted in her condition. A sudden embolus, lodging in the right internal capsule, seemed the most logical explanation for the change in the clinical picture. An acute thrombophlebitis of the left internal saphenous vein developed on December 30, 1939, with a concomitant edema of the entire left lower extremity. A marked inflammation and tenderness was evident over the course of the affected vein. These developments seemed to presage the death of the patient, but instead her clinical condition gradually improved. On January 4, 1940, she was afebrile all day for the first time since her delivery and the condition of the left leg showed marked improvement. The paralysis of the left face and tongue had disappeared and muscular function was definitely returning to the left arm. The cardiac signs were less pronounced, but the bronchial breathing, the crepitant inspiratory rales, and the marked dulness were still present at the right base. An uneventful improvement continued until January 11, 1940, when she complained of a severe pain over the inner surface of the right thigh and developed a condition quite analogous to that already described as involving the left leg. This complication responded promptly to treatment and the patient was again afebrile on January 15, 1940. From that date onward her convalescence was uneventful and she was discharged from the hospital on January 26, 1940. At that time the cardiac murmurs had practically disappeared, but bronchonvesicular breath sounds and crepitant inspiratory rales were still present over the middle lobe of the right lung. The outpatient clinic reports indicate that the patient is in apparent good health at the date of this report (August 23, 1940).

DISCUSSION

It is of particular interest in this case to note that the patient's prenatal progress had been uneventful and that on admission to the hospital, the physical examination revealed nothing abnormal except that (1) fetal movements and fetal heart tones were absent; (2) the membranes had ruptured; and (3) the cervix was bilaterally lacerated and eroded. After the vaginal examination, which was followed in three hours by a chill and a sudden rise in temperature, an episiotomy was done and a macerated fetus was delivered by breech extraction with forceps to the after-coming head. This was accompanied by what was described as an excessive amount of hemorrhage. Whether or not it was the vaginal examination, instrumentation, and severe hemorrhage incident to the delivery which began the series of events which followed is hard to say. It is not beyond the realm of possibility that this patient had been suffering from a chronic cervicitis for some time, and that the instrumentation and vaginal examination served to light up a smoldering focus with an extension of the process into the endometrium and the uteropelvic veins. It should be noted that extensive infection of the episiotomy wound occurred, and this fact must be considered as a possible etiologic cause for the subsequent developments.

Following delivery, the patient's temperature gradually rose and the fever curve became remittent in type. In view of the murmur heard over the base and apex, together with the fever, it is quite probable that she had an endocarditis. Ramirez et al.[3] have reported three cases with very similar histories and physical findings with an endocarditis of a similar character in each case at postmortem.

The sudden pain in the right chest, followed by signs of consolidation, indicates the development of a pulmonary infarct. Whether it was due to an embolus arising from the damaged endocardium or directly from the infected pelvic veins cannot be determined with any degree of certainty. In view of the subsequent exents, the former seems to be the most likely occurrence.

An endocarditis, then, would adequately explain the series of events which led to the diagnosis of an embolus lodging in the internal capsule on the right side. This was followed by an involvement of both internal saphenous veins.

When the clinical picture is viewed in its entirety, it appears quite evident, despite the negative blood cultures, that we were dealing with a blood stream infection of a relatively low virulence.

The noteworthy thing is that, despite this series of complications, the patient recovered and is now well. There is no question but that the repeated transfusions were responsible to a large extent for the recovery. It should also be noted that the patient received, in the way of chemotherapy during the height of the disease, large doses of sulfanilamide and sulfapyridine with little or no clinical improvement.

The fact that on discharge there were still some crepitant rales is apparently not unusual in such a case as this. According to Ugarte and Larenas,[2] complete absorption of the infarct occurred in only 34 per cent of their cases.

The often repeated admonition—to avoid unnecessary surgical and obstetrical intervention—is emphasized by the series of complications in this case.

SUMMARY

A case of postparturient infection with probable endocarditis, pulmonary infarction, cerebral embolism and bilateral thrombosis of the internal saphenous veins with recovery is reported. Apparently no similar case is on record in the recent North American literature, although similar cases have been reported in the foreign journals, particularly those of French, German, and South American origin.

REFERENCES

1. Gonnet, Boussillon, and Joly: Two cases of severe infarctions after abortion, Bull. de la Soc. d'obstet. et de gynec. de Paris, 25:256, 1936.
2. Ugarte, G., and Larenas, A.: Pulmonary complications in puerperal infections, Bol. de la Soc. chilena de obstet. y ginec., 4:125, 1939.
3. Ramirez Olivella, J., Cardenas Pupo, and Rodriguez Feo, J. A.: Thrombo-endocarditis in puerperal infections, confirmed anatomically in the years 1934 to 1937 in the Municipal Maternity Hospital, Vide nueve, 41:134, 1938.
4. Hellner, F.: Rupture of the aorta in a case of septic abortion, Zentralbl. f. Gynak., 60:2723, 1936.

SPONTANEOUS MEDIASTINAL EMPHYSEMA

EDWARD MATTHEWS, M. D.†
NEW ORLEANS

Mediastinal emphysema has long been recognized as a complication of disease or injury of the lung, and in 1888, Muller described as physical signs indicative of this condition the disappearance of cardiac dulness to percussion and the presence over the precordium of bubbling crepitations synchronous with the heart beat.[1]

It was, however, Hamman of Baltimore who first called attention to the clinical picture resulting from the spontaneous occurrence of mediastinal emphysema.[2, 3, 4] Hamman has observed seven patients with this syndrome; including the case herein described there are now on record sixteen case reports of this condition.[2-10]

The patient, usually a male between 15-40 years of age, is seized while at rest or during slight activity with a severe pain in the left side of the chest or beneath the sternum, with perhaps radiation to the arms. This pain may disappear in a few hours or may last for days. The attack simulates one of coronary occlusion, except that there are usually no signs of shock and no subsequent fever, leukocytosis, or electrocardiographic changes. In most cases, there is heard by the patient or even by others in the room, a noise synchronous with the heart beat.

Examination reveals two characteristic physical findings: on percussion, the absence of cardiac dulness, and on auscultation, the presence of bubbling, crackling, crepitant sounds over the precordium. In addition, there may be found other evidences of escape of air from the lung, such as subcutaneous emphysema of the neck (six of 16 cases), and pneumothorax (eight of 16 cases, all on the left side). Roentgenograms of the chest have shown in seven of 15 cases pockets of air adjacent to the heart shadow.

No treatment has been necessary except for bed rest, and, in some patients, opiates for the relief of pain. Recovery has ensued in all instances.

The probable explanation of the genesis of spontaneous mediastinal emphysema is contained in the experiments of Macklin.[11]

†From the Department of Medicine, School of Medicine, Tulane University, New Orleans, Louisiana.

In overinflating the lungs of cats by pumping air down the trachea, rupture of alveoli was noted, followed by dissection of air along the sheaths of blood vessels to the mediastinum, whence it escaped into the subcutaneous tissues of the neck, or, by rupture of the mediastinal pleura, into the pleural cavity. Mediastinal emphysema could not be produced by injecting air under pressure into the pleural cavities. Apparently the sequence is: alveolar distention and rupture, interstitial emphysema of the lung, mediastinal emphysema, and then, pneumothorax or subcutaneous emphysema. Hamman has further suggested that this mechanism may afford a better explanation for some cases of spontaneous pneumothorax than does the theory of ruptured subpleural bleb.

CASE REPORT

A. B., a 25 year old colored male laborer, was admitted to Charity Hospital on December 5, 1940, complaining of pain in the left chest of three days' duration. He had enjoyed excellent health until one month before admission, at which time he developed what he described as a "chest cold," with cough and expectoration of small amounts of whitish sputum. Three days before admission, he noted gradual onset of pain in the chest. This pain was not preceded by any particular effort or exertion. It was localized in the left anterior chest and was somewhat aggravated by breathing. The pain increased in severity and there developed moderate shortness of breath.

Examination disclosed a robust colored man who complained of some pain during the first day in the hospital but who thereafter was ambulatory about the ward and in no distress. The temperature, pulse, and blood pressure were normal throughout the twelve days of hospitalization. Chief interest centered in the examination of the chest. Over the entire left side there were decreased fremitus, increased resonance to percussion and absent or distant breath and voice sounds. There was suggestive deviation of the trachea to the right and there was resonance in the usual area of cardiac dulness. The findings were considered to be indicative of left pneumothorax and roentgenograms confirmed this diagnosis, showing 80 per cent collapse of the left lung with, however, little or no displacement of the mediastinum. Over the precordium and as high as the second intercostal space there was heard a curious sound. It was crepitant in quality with a to-and-fro character synchronous with the phases of the heart beat. Several observers agreed that it was unlike the usual pericardial friction-rub. It was heard best with the patient recumbent and with the breath held in expiration. It was at first of moderate intensity; it gradually decreased over a period of 12 days but was still audible when the lung had re-expanded to an estimated 20 per cent collapse. There was no evidence of subcutaneous emphysema and no free air in the mediastinum was seen in A-P roentgenograms. The nature of the abnormal sounds heard over the precordium, however, was such as to justify a diagnosis of spontaneous mediastinal emphysema, with spontaneous left pneumothorax.

CONCLUSIONS

Spontaneous mediastinal emphysema, often accompanied by pneumothorax and subcutaneous emphysema, is a benign clinical entity characterized by pain in the chest similar to that of coronary occlusion. The physical findings aiding in its recognition are: the absence of precordial dulness to percussion and the presence of a loud crepitant sound synchronous with the heart beat. Roentgenograms may reveal pockets of air adjacent to the heart.

REFERENCES

1. Muller, quoted by McGuire & Bean (8).

2. Hamman, L.: Remarks on the diagnosis of coronary occlusion, Ann. Int. Med., 8:417, 1934.

3. Hamman, L.: Spontaneous interstitial emphysema of the lungs, Tr. A. Am. Physicians, 52:311, 1937.

4. Hamman, L.: Spontaneous mediastinal emphysema, Bull. Johns Hopkins Hospital, 44:1, 1939.

5. Lister, W. A.: A case of pericardial knock associated with spontaneous pneumothorax, Lancet, 1:1225, 1928.

6. Scott, A.: Significance of anginal syndrome in acute spontaneous pneumomediastinum, Lancet, 1:1327, 1937.

7. Wolferth, C. C., and Wood, F. C.: Angina pectoris, Med. Clin. North America, 13:947, 1930.

8. McGuire, J., and Bean, W. B.: Spontaneous interstitial emphysema of the lungs, Am. J. Med. Sci., 197:502, 1939.

9. Morey, J. B., and Sosman, M. C.: Spontaneous mediastinal emphysema with report of a case associated with spontaneous pneumothorax, Radiology, 32:19, 1939.

10. Caldwell, H. W.: Spontaneous mediastinal emphysema, J. A. M. A., 116:301, 1941.

11. Macklin, C. C.: Transport of air along sheaths of pulmonic blood vessels from alveoli to mediastinum. Clinical implications, Arch. Int. Med., 64:913, 1939.

MANAGEMENT OF STRYCHNINE POISONING

CASE REPORT OF RECOVERY FOLLOWING INGESTION OF 0.325 GRAM

DONOVAN C. BROWNE, M. D.†
AND
GORDON MCHARDY, M. D.†
NEW ORLEANS

Toxicity from therapeutic doses of strychnine is of minor importance for it is readily relieved by withdrawal of the drug. Frank overdosage, accidental or suicidal, results in tetanic convulsions, violent cardiovascular changes, spasmodic respirations and death from asphyxia, and from the paralysis which succeeds the stimulation. Although various factors affect absorption when taken orally, it is rapidly absorbed as illustrated in that convulsive effects are usually pronounced within fifteen to thirty minutes. Excretion is mainly urinary, with approximately 20 per cent appearing in the urine in an unchanged state, induced diuresis alters this percentage very slightly, if at all, so that therapeutic measures directed at increased excretion are relatively valueless.

We are prompted to report this instance of strychnine poisoning for five reasons; (1) The dose was proved to exceed greatly the minimal fatal dose; (2) it was taken accidentally which is unusual for strychnine, the dangers of the drug being so well known as to preclude carelessness; (3) relatively few persons have recovered after such dosage; (4) the relative infrequency of strychnine poisoning renders pertinent a review of the subject that one may have available the knowledge necessary for the immediate action required; (5) the success of an intravenous barbiturate in this case supports their relative specificity as antidotes to strychnine.

CASE REPORT

L. M., a 20 year old pharmacy student, was admitted to Touro Infirmary November 29, 1938. In error filling two 5 grain capsules with strychnine while intending the use of quinine, for self therapy of a mild respiratory infection, the patient swallowed one of these just prior to entering his nine o'clock class. (The second capsule was later found to contain 0.325 gm. of strychnine). Shortly thereafter there was tightening of his facial muscles followed by generalized muscular twitching. His error realized, at 9:20 a. m., he was forced to drink a weak solution of tannic acid. En route to the hospital he had two severe convulsions and was in opisthotonos when carried into the emergency room. At 9:35 a. m., after rapid intravenous administration of 0.5 gm. of sodium amytal, he relaxed and gastric lavage with potassium permanganate was performed. The lavage excited considerable muscular twitching and 0.016 gm. morphine sulphate was given intravenously. The twitching developed into the third convulsion with opisthotonos which lasted a full two minutes, subsiding while the second intravenous 0.5 gm. of sodium amytal was being given. For about twenty minutes the patient was completely relaxed, respiration exceeded 30 per minute, the systolic blood pressure was 165, the pupils were widely dilated. Then there was a recurrence of muscular twitching and at 10:10 a. m. the third intravenous 0.5 gm. of sodium amytal was given. A similar recurrence indicated the fourth repetition at 11:15 a. m., after which he remained quiet throughout the next nine hours and was not disturbed in any way. At 8:00 p. m. he began to move about and the fifth 0.5 gm. of sodium amytal was given. Shortly thereafter he was catheterized and 550 c.c. of urine removed and the bladder lavaged with 1:1000 potassium permanganate. (This urine yielded 27.5 milligrams of strychnine).

The patient was not permitted to waken, sodium amytal 0.25 gm. being given intramuscularly every four hours during the following 24 hours. On awakening, approximately 48 hours after the ingestion of the strychnine, he still appeared overstimulated despite the excessive sedation for a 122 pound male.

He was febrile the first 72 hours with a persistent tachycardia; there was a leukocytosis of 18,500. The urinalysis was negative other than for the presence of strychnine, traces of which persisted for four days. The blood chemistry showed no departure from normal.

The patient's convalescence was uneventful other than for diarrhea which persisted for six days. When last examined in May, 1940 he complained only of a persistent tachycardia. There were no cardiovascular findings and the electrocardiogram was normal. He is now a graduate pharmacist!

THERAPY

This case report illustrates several points of more than ordinary importance which will be discussed in the following therapeutic review.

†From the Department of Medicine, Tulane University of Louisiana School of Medicine, and the Gastroenterology Clinic, Touro Infirmary, New Orleans, La.

Older methods of therapy emphasized extreme quiet with avoidance of all stimulation. Immediate anesthesia with chloroform or ether was a necessity, that under such influence gastric lavage and rectally administered chloral hydrate could be achieved. Inhalation anesthesia is, of course, in itself a problem and besides the patient quickly wakens to suffer further convulsive seizures.

The choice of lavage material lies between potassium permanganate which will destroy the strychnine by oxidation and tannic acid which will precipitate the poison in a relatively insoluble form. Either of the two, if not removed, may cause a gastroenteritis, but no more effective material is available. Both were used in our patient without any untoward effect other than a mild enteritis.

Apomorphine has a limited group of advocates. It does not seem rational to use a drug that will precipitate a convulsion. Morphine, itself, theoretically is objectionable, since its action on the spinal cord is synergistic to strychnine. Our use of morphine intravenously certainly substantiates the contraindications to its use; immediately after it was given the patient had a severe convulsion.

In recent years realization of effective rapid anesthesia by intravenous barbiturates has led to their use as an anti-convulsant.

We are impressed by the effectiveness of sodium amytal in strychnine poisoning. Our patient was awake and in agony with extreme opisthotonos when first seen; relaxation and anesthesia were induced immediately by this rapidly acting intravenous preparation. The patient was not conscious of any further discomfort until permitted to waken. The quantity of barbiturate used is startling but since extreme stimulation was being combated, and further that strychnine and the barbiturates are antagonists, therein probably is the explanation for such tolerance. That the barbiturates neutralize considerable strychnine is substantiated by animal experimentation; its value as an antidote has been clinically supported by a sizeable group of case reports appearing in the literature since 1932.

We would like to suggest an additional measure, bladder irrigation, followed by instillation, using potassium permanganate to oxidize the excreted strychnine. Although it is generally accepted that few if any drugs are absorbed from the bladder, reabsorption may occur and for this reason we felt the elimination of such a possibility advisable.

CONCLUSION

It seems conclusive that an intravenous barbiturate is the best therapeutic agent in strychnine poisoning. By reducing excitability and keeping the patient asleep it achieves freedom from the agony of convulsive seizures and permits gastric lavage. In this effectiveness it can and does reduce the mortality from strychnine poisoning.

BIBLIOGRAPHY

Anderson, C. L.: Case of strychnine poisoning, Canad. M.A.J., 33:307, 1935.

Bancroft, A. G., and Boxhill, D. DeC.: Strychnine poisoning treated successfully, Brit. M.J., 1:363, 1936.

Dawton, W. T., and Porter, E. L.: Barbiturate-strychnine antagonism in spinal cat, Proc. Soc. Exper. Biol. & Med., 31:1048, 1934.

Gold, H., and Travell, J.: Ethyl alcohol and strychnine antagonism, J. Pharm. & Exper. Therap., 52:30, 1934.

Gold, H., and Travell, J.: Strychnine poisoning by alcohol, J. Pharm. & Exper. Therap., 52:345, 1934.

Priest, R. E.: Strychnine poisoning successfully treated with sodium amytal; report of two cases, J.A.M.A., 110: 1440, 1938.

Rose, T.: Strychnine poisoning with recovery, M.J. Australia, 1:213, 1935.

Swanson, E. E.: Detoxification of strychnine by pentobarbital sodium, J. Am. Pharm. A., 24:959, 1935.

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THE ANNUAL CONVOCATION

The sixty-second annual meeting of the Louisiana State Medical Society will be held in Shreveport, April 21-23. The plans for this meeting are practically complete. From advance information this yearly gathering of the medical profession of the State of Louisiana promises to excel any meeting previously held in the state.

First, let it be pointed out that six distinguished and well-known physicians from out of the state will participate in the meeting. Dr. Holman Taylor, for many years secretary of the State Medical Society of Texas and one of the best informed men in the country on medical organization, medical economics and medical practice, will deliver the annual oration. Dr. Taylor stands high in the administration of the American Medical Association. His address will be a message that the practitioner cannot afford to miss. Dr. Harvey G. Beck, one of the best known of the older group in Baltimore and Professor of Clinical Medicine at the University of Maryland, will appear before the Section on Medicine and Therapeutics. Another Baltimore man, Dr. Ernest H. Gaither, will be on the program in the Section on Gastroenterology. Dr. Gaither has spoken several times in New Orleans and his lucid and enlightening and well delivered talks are familiar to many of the state members. Dr. J. D. Camp has been invited by the Section on Radiology to appear before their group. Dr. Camp is Associate Professor of Radiology in the Mayo Foundation. Dr. Brian Blades, on the program of the surgical section, is one of the younger group at the Barnes Hospital, associated with Dr. Evarts Graham, who helps to make Washington University one of the important surgical centers in the United States. Dr. Virgil S. Counseller is head of the Section of Gynecologic Surgery at the Mayo Clinic. His name is well known to gynecologists and obstetricians throughout the country. Surely a group of speakers such as the above will spread a literary and scientific feast to be partaken of by the auditors.

The program of the different sections shows that the doctors of Louisiana are observing and recording. The thirty-nine participants in the program will give a series of diverse and diversified papers on timely subjects which are presented to the medical men of Louisiana from the personal experiences of the observers. These papers will be discussed, it is hoped, freely and widely.

In addition to the scientific features which include a scientific exhibit and also

a commercial exhibit which in a sense is scientific because it presents the latest developments in medicine and surgery, the social aspects of the meeting will be taken care of by as gracious and hospitable a group as exists in the state. Shreveport men will do everything to make the visit of the attendants enjoyable and memorable. They can always be counted upon to do this. The social features of the meeting, incidentally, are by no means a minor series of events. Here a man not only has the pleasure of meeting his colleagues and friends throughout the state but also has the opportunity of talking without restraint and man to man concerning the medical problems and the economic difficulties that he may have with some or many who are likewise interested in the same unsolved conundrums.

We urge all members of the Society to put at once the date of the annual meeting on their calendars, to inform their patients that they will be away on those days the last of April and to attend the annual get together of one of the best state societies in the United States.

STATE MEDICINE

The press announced last month that the Health Ministry of New Zealand had started, as of March first, with national free medical care. The doctors of New Zealand will receive $3.50 for each patient per year and mileage will be allowed for trips in the country of over twenty miles. The doctors must supply drugs, although they are allowed to charge the patient for these if they are able to collect the monies they must advance! The press accounts state that even unsuccessful doctors will be able to make about as much as $700 a year.

Just imagine the incentive a doctor will have for years of hard work, of study, of expenditure of a large amount of capital in order to obtain the princely sum of $700 a year. Think of the amount of work that would be necessary in order to obtain this munificent salary. At least, and probably a good many more than, two hundred patients must be taken care of during the year because this sum is not clear, but must be used in part for necessary expenses. In all likelihood 2000 forms must be filled out for these two hundred patients.

Just think of the type of service that will be rendered to a patient by a man who is expected to make his living from the returns from the care of the state-paid-for patients; even to make a living wage he will have to take care of an untold number of patients. He will not be able to give them the time for adequate study nor will he be able to devote any time to improving his knowledge of medicine. The physician's entire day will be spent in giving a service which necessarily will have to be inadequate and incompetent. The minimum wage distinctly has a tendency to promote incompetency.

Just think of how many bureaucratic officials will live on the doctor. A host of administrators, accountants, clerks and what not must be supported by the efforts of the physician.

Just think of the New Zealand medical care plan and then stop and think of the condition that the physician would be in in this country were he placed in the category of an employee of the state, the obeyer of the demands of some one or many who know nothing about the endless difficulties and the often insurmountable problems of the care of the sick man.

DISEASES TRANSMITTED FROM ANIMALS TO MAN

There are many diseases of domestic animals that are transmitted to the human animal. Many of these diseases are well known; tuberculosis, glanders, anthrax, smallpox or cowpox, psittacosis and brucellosis are excellent examples of diseases animals have and which in turn are given to man. There are some seventeen of these diseases but most of them, such as looping ill or Rift Valley fever, are extremely rare and uncommon. Another group of diseases which are public health problems because

they are spread by rodents, include plague, which is practically never seen in this country, tularemia, typhus fever, Rocky Mountain spotted fever and rat-bite fever. Still another relationship of animal to man in the spread of disease has to do with those conditions in which the animal is not ill, in some way or another carries the organisms to transmit them to man. Diphtheria, scarlet fever and septic sore throat are examples of this particular method of spread. Lastly, animals may be passive carriers of germs which in turn may be carried to man. In this category may be placed tetanus, gas gangrene and botulism. Of course, besides these virus and bacterial diseases, fungus diseases may be transmitted by animals as well as various types of animal parasites.

Fortunately the dog, the one animal which prefers the company of man to his own species, rarely is known to transmit a disease. Even animal parasites are only occasionally passed from animal to master. On the other hand, cattle, the animal which more than any other one species supplies food to man, is very likely indeed to transmit disease either through the flesh or by the milk to the human being. Tuberculosis is a common example. It should be said to the credit of veterinarians that they are gradually stamping out tuberculosis amongst cattle in this country. The veterinarians in a twenty year period tuberculin tested more than 217,000,000 cattle. In the bodies of slightly under 4,000,000 reactors which were examined at postmortem almost without exception tuberculous lesions were present in these cattle. However, much more frequently is disease transmitted by milk. The number of diseases which may be transmitted by milk are not so numerous but often are devastating. Realizing and appreciating the difficulty in obtaining pure milk, enlightened sanitarians and health officers have become vigorous proponents of pasteurization of milk. Pasteurization of milk properly carried out will prevent the transmission of disease by milk. It should be a requisite for all milk distributed to the population as a whole. Even if there are comparatively few cases of brucellosis, the long course of the disease and the prolonged illness of the subject of this infection becomes a definite indication for pasteurization, and yet brucellosis is only one of the several diseases transmitted through milk.

The veterinarians and physicians must work hand in hand in attempting to eradicate some of the diseases of man and animal. Rabies is a splendid example of what may be accomplished by the conjoint efforts of these two professions. In many other types of disease mutual to man and animal the two professions should cooperate more than they are at the present time. Animal disease problems are, it is true, primarily public health problems but the doctor of veterinary medicine should play as important a part in helping to eradicate these diseases as does the doctor of medicine.

HOSPITAL STAFF TRANSACTIONS AND CLINICAL MEETINGS

MERCY HOSPITAL
New Orleans

The monthly meeting of the staff was held March 12, at 8:30 p. m. in the lecture room of the hospital, Dr. T. F. Kirn presiding.

Due to inclement weather and a small attendance the two speakers of the evening were asked to present their papers at our next regular meeting to be held Wednesday, April 2, 1941 at 8:00 p. m.

The deaths for the past month were reviewed by Dr. G. H. Hauser and discussion of most interesting cases was indulged in by the membership.

A very interesting case of staphylococcic septicemia following incision and drainage of an abscess of the arm (produced by intramuscular injections of digalen) was presented by Dr. P. A. Phillips and discussed by Dr. G. H. Hauser and other members of the staff.

The ladies auxiliary of the hospital is sponsoring a dinner dance at Club Athram on the night of April 26. The membership and friends are invited to participate: Tickets may be bought from any of the members of the auxiliary, or from the staff secretary for $1.50 per person.

N. J. Tessitore, M. D., Sec.

TOURO INFIRMARY
New Orleans

The regular monthly meeting of the Medical Staff was held on Wednesday, March 12 at 8 p. m. The program consisted of the following: Clinico-pathologic Conference by Dr. Harvey Colvin; "A Review of Hysterectomies in Touro Infirmary" by Dr. C. H. Tyrone; "Meckel's Diverticulum with Intestinal Obstruction" by Dr. L. H. Strug.

BAPTIST HOSPITAL
New Orleans

The regular monthly meeting of the Clinical Staff was held on Wednesday, February 26 in the Staff Room of the Hospital at 8 p. m. The program consisted of the following presentations: "Spastic Ureteritis in Women" by Dr. H. W. E. Walther; "Interesting Cases from the X-ray Standpoint" by Dr. L. W. Magruder and "Death Report" by Dr. Bert DeBord.

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TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

April 1. Eye, Ear, Nose and Throat Staff, 8 p. m.

April 2. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Hutchinson Memorial Clinic Staff, 8 p. m.
Mercy Hospital Staff, 8 p. m.

April 3. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.

April 7. Orleans Parish Medical Society Board of Directors, 8 p. m.
Clinico-pathologic Conference, Hotel Dieu, 8:15 p. m.

April 8. Eye, Ear, Nose and Throat Society, 8 p. m.

April 9. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Touro Infirmary Staff, 8 p. m.
Woman's Auxiliary, Orleans Club, 3 p. m.

April 10. New Orleans Hospital Council, Eye, Ear, Nose and Throat Hospital, 8. p. m.

April 14. Orleans Parish Medical Society, Scientific and First Quarterly Executive Meeting, 8 p. m.

April 15. Charity Hospital Medical Staff, 8 p. m.

April 16. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Charity Hospital Surgical Staff, 8 p. m.
The Orleans Tuberculosis Hospital Staff, 8 p. m.

April 17. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.

April 18. I. C. R. R. Hospital Staff, 12 noon.

April 21. Hotel Dieu Staff, 8 p. m.
Clinico-pathologic Conference, Baptist Hospital, 8 p. m.

April 22. Baptist Hospital Staff, 8 p. m.

April 23. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Catholic Physicians' Guild, 8 p. m.
French Hospital Staff, 8 p. m.

April 24. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.

April 25. L. S. U. Faculty Club, 8 p. m.
New Orleans Dispensary for Women and Children Staff, 8 p. m.

April 30. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.

During the month of March the Society held one regular scientific meeting, and one joint scientific meeting with the New Orleans Graduate Medical Assembly. The programs were as follows:

Regular Scientific Meeting

1. Etiology of Influenza—A Review
   By Dr. George W. McCoy
2. Otorhinolaryngologic Aspects of Influenza
   By Dr. H. L. Kearney
3. Treatment of Influenza
   By Drs. Oscar W. Bethea and Ralph G. Greenlee
4. Case Report: An Unusual Case of Sciatica
   By Drs. Irving Redler and Gilbert C. Anderson

Joint Scientific Meeting

1. The Management of Acute Intestinal Obstruction.....By Dr. Owen H. Wangensteen, Professor of Surgery, University of Minnesota Medical School
2. Complete Tears of the Perineum
   By Dr. Louis E. Phaneuf, Professor of Gynecology, Tufts College Medical School

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TREASURER'S REPORT

Bank Balance, January 31, 1941	$5,510.66
February Credits	1,160.47
Total Credits	$6,671.13
February Expenditures	1,166.22
Actual Book Balance, February 28, 1941	$5.504.91

NEWS ITEMS

Dr. Merrill C. Beck was recently elected to membership on the board of the Child Conservation League of Louisiana.

Dr. James K. Howles was recently elected to fellowship in the American College of Physicians.

Dr. E. L. Leckert was elected president of the Catholic Physicians' Guild of New Orleans at its recent meeting. Other officers elected were: Dr. Joseph Danna, first vice-president; Dr. E. L. Zander, secretary; Dr. N. F. Thiberge, treasurer; Dr. T. F. Kirn, chairman of activities; Dr. F. J. Chetta, chairman of membership committee; Drs. Dan Murphy, W. G. Troescher and Joseph Palermo, members of the board of directors.

Dr. Alton Ochsner presented a paper on the rôle of vasospasm in thrombophlebitis at Emory University, January 30.

Dr. Thomas B. Sellers was a guest speaker at the International Post-Graduate Medical Assembly in San Antonio, January 28-30. The papers which he presented were "Dysmenorrhea," "Breech Presentation," and "Present Status of Pessaries in the Armamentarium of the Obstetrician and Gynecologist."

The monograph entitled "The Rôle of the Liver in Surgery," for which Dr. Frederick F. Boyce was awarded the 1940 Gross Prize for original research in surgery by the Philadelphia Academy of Surgery, has just been published by Charles C. Thomas.

Dr. Rufus H. Alldredge was recently certified by the American Board of Orthopedic Surgery.

Dr. Rufus H. Alldredge gave a paper on "Fibrocystic Diseases of the Bones" at the ninth annual meeting of the American Academy of Orthopedic Surgeons, held January 13-16.

Dr. Frederick F. Boyce conducted a diagnostic clinic on the management of difficult biliary tract surgery for the staff of the department of surgery and the third and fourth year students of the Yale University Medical School.

Dr. W. H. Perkins was recently re-elected president of the New Orleans Tuberculosis and Public Health Association of Louisiana. Other officers are: Dr. A. J. Hockett, second vice-president; Dr. B. I. Burns, director; members of the executive committee, Drs. R. Alec Brown, Joseph A. Danna, Sydney Jacobs, M. E. Lapham, John H. Musser, I. L. Robbins, Robert A. Strong, Julius L. Wilson, and J. O. Weilbaecher, Jr.

Dr. Marion Souchon won the annual award for the most distinctive painting at the recent Mississippi Art Association exhibition in Jackson.

At a recent staff meeting of the Mercy Hospital, Dr. Rupert Arnell presented a paper "Hemorrhage in Late Pregnancy"; Dr. M. L. Stadiem presented a paper on the "Present Status of Endocrine Therapy in Gynecology"; and a motion picture on "Acute Cholecystitis" was shown by Dr. Frank Loria.

Edwin L. Zander, M. D., Sec.

LOUISIANA STATE MEDICAL SOCIETY NEWS

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
East Baton Rouge	Second Wednesday of every month	Baton Rouge
Morehouse	Second Tuesday of every month	Bastrop
Orleans	Second Monday of every month	New Orleans
Sabine	First Wednesday of every month	
Second District	Third Thursday of every month	

THE PRESIDENT OF THE STATE MEDICAL SOCIETY

Dr. C. Grenes Cole was born in Greensburg, St. Helena Parish, Louisiana on July 31, 1880. After attending grade school in Greensburg, he further pursued his studies at Louisiana State University, following which he entered the Medical Department of Tulane University, graduating in 1908. Dr. Cole then served a year's internship at Shreveport Charity Hospital and two years' internship at Charity Hospital in New Orleans.

Following his graduation from Tulane University he served as House Surgeon at Hotel Dieu from July, 1908 until January, 1909 from which position he resigned to accept the Assistant House Surgeonship of the New Orleans Charity Hospital, serving there until 1914.

Dr. Cole has been connected with the teaching staff of both Tulane and Louisiana State University Medical Schools having served as Assistant Professor of Gynecology, Undergraduate Department, and later as Assistant Professor of Clinical

Surgery, Postgraduate Department, Tulane University. At the organization of the Louisiana State University Medical Center he was made Professor of Clinical and Industrial Surgery.

He was a member of the Board of Administrators of Charity Hospital from August, 1930 until August, 1934. In 1930 he was elected President

of the Orleans Parish Medical Society and has been Chairman of the Committee on Public Policy and Legislation of the Orleans Parish or Louisiana State Medical Society for many years. In addition to his present duties as President of the Louisiana State Medical Society, he is also serving as State Chairman of the Medical Preparedness Committee of the American Medical Association and President of the Louisiana State Coroners' Association.

Dr. Cole was elected Coroner of Orleans Parish in 1934 which office he has held continuously since this date. He is a member of the Orleans Parish Medical Society, Louisiana State Medical Society, Southern Medical Association, American Medical Association, The Southeastern Surgical Congress and has been a Fellow of the American College of Surgeons since its foundation. He is Senior Surgeon on the Visiting Staff of Hotel Dieu, Southern Baptist, Mercy and Charity Hospitals.

In 1914 he married Miss Hallette Barrow of New Orleans. Dr. and Mrs. Cole live in New Orleans where Dr. Cole has been practicing medicine since his graduation, and have a country home in Houma, Terrebonne Parish, where Dr. Cole raises camellias and poultry and supervises the management of his sugar plantation and other interests.

DR. FRED J. MAYER

TO WHOM THIS ANNUAL MEETING IS DEDICATED

Dr. Mayer was born in St. Mary's Parish April 14, 1859. His schooling was had in the public schools of Opelousas but as much of his boyhood was spent in Bavaria, London and Belfast, much of his education was obtained from tutors. He taught public school from 1876-1882, starting this activity when he was only 18 years old. He then studied medicine at the University of Louisiana (Tulane), graduating in 1883. In 1885 he was chosen president of the Attakapas Medical Society, the oldest medical society in the state. At this time Dr. Mayer warned the profession in the state that the propaganda of hygiene should be done only under the auspices of the medical organization. He himself gave the first popular hygiene lecture in the South, in Lafayette, on infections and contagions. He discussed tuberculosis and explained the non-contagiousness of yellow fever. He fathered a resolution before this medical society and the State Medical Society to issue for free distribution to the public a pamphlet on the nature of tuberculosis published in English, French and Italian.

In 1887 he organized and obtained a charter for the first popular institute for hygiene, aided by leading sanitarians in the state.

In 1890 Dr. Mayer became assistant quarantine physician, Quarantine Station, Port Eads, a position which he held for three years. At this time he urged the use of formaldehyde in flat disinfection, where sulphur dioxide could not be used and advocated the use of oil instead of coal for the United States Navy.

Following these activities Dr. Mayer, in 1900, resumed practice. He drafted a hygiene bill which, largely through his efforts and despite bitter opposition of the then governor, obtained passage of this bill through two legislatures, but it was vetoed twice. Enactment of this law would have saved the state many dollars and many human lives. About this time he drew up the plan that made possible the Southwestern Louisiana Institute at Lafayette. As Chairman of the Section of Medical Jurisprudence of the Louisiana State Medical Society, he presented a paper on medical expert testimony, ridiculing existing practice of calling for reform based on common sense and scientific knowledge of psychiatry. Dr. Mayer at this time was actively interested in health problems. He toured the state, lecturing on the subject of health in the human and animal,

pointing out that the worst economic leak on the farm was disease in man and animal. He urged better roads and more thorough drainage as a health measure. He urged closer cooperation between medical and veterinary societies pointing out the intercommunicability of human and bovine tuberculosis and even went to Washington in an attempt to secure action by Congress. In 1906 he was appointed special medical inspector of Louisiana and was instrumental in revising the sanitary code of the State. He aided in securing passage of the pure food and drug law of the state before similar Federal action had ever been taken. He was active in an epidemic of yellow fever in 1906 and conducted in 1905 a series of over 100 mosquito institutes in the yellow fever area.

Public health measures were always of interest to this distinguished member of the profession. He studied and investigated an outbreak of dengue in Brownsville, Texas. He investigated and traced the fly infection to typhoid fever in Sabine and Point Coupee Parishes. He was delegate to the American Public Health Association which met in Mexico City in December 1906.

His activity in public health measures continued through his active life. He presented papers before the American Public Health Association meeting in Washington in 1908. He held institutes throughout the state on yellow fever, tuberculosis, typhoid and hookworm and he was active in giving "sanitary Sunday sermons" in churches. Two years later he was made special inspector by the state health officer of Texas to investigate yellow fever, cholera and bubonic plague in Europe, South and Central America. He, at that time on his return from this trip, addressed the Texas Legislature, crusading against the slaughter house evils and promoting the inspection for tuberculosis in infected cattle.

Realizing the worth of this outstanding physician, in 1912 he was elected president of the Louisiana State Medical Society. Under his regimen the debt of the State Society was lifted and the organization was placed on a cash basis. As president of the State Medical Society he conducted two rat institutes at New Orleans and at the time predicted an epidemic of plague unless rat proofing was carried out. He delivered his sanitary sermons not only in Louisiana but also in Texas, Kentucky and Virginia.

In 1918 Dr. Mayer was appointed field agent and organizer of the field units of the tuberculosis league and prepared a comprehensive plan for state organization. Since that time Dr. Mayer has urgently preached public health measures. He says "the stone of preventive medicine that the builders once rejected has now become the cornerstone of the modern medical edifice." He says also that from the experience to be gained in his years of attempting to educate the public and surmounting the difficulties of altering previous opinions that he has learned the best way to educate adults was through the children in schools.

The State Society does well to honor this distinguished medical educator, an educator who has taught and preached health measures far and wide. It is through the stimulation of men such as Dr. Mayer that as much has been accomplished as it has in preventive medicine. All honor to him.

THE ANNUAL ORATOR

Dr. Holman Taylor, the son of Dr. and Mrs. J. H. Taylor, was born in Hallsville, Texas, April 8, 1874. His grandparents on both sides of the family were Texas pioneers, and descendants of early settlers of the United States, as witness his membership in the Sons of the American Revolution. He received his education in the public schools of Marshall, to which city he moved when he was eight years of age. He attended Bethel College, at Russellville, Kentucky, graduating with the degree of Bachelor of Science, in 1896. He graduated in Medicine from the Medical Branch of the University of Texas, Galveston, in 1899. He entered the general practice of medicine at Marshall, in partnership with his father, the year of his graduation at Galveston. He practiced at Marshall until 1910, at which time he removed to Fort Worth, where he entered general practice and took over the duties and responsibilities of Secretary-Editor for the State Medical Association of Texas, which position he has held continuously since that time, except for the time he spent in the Army during the first World War.

Dr. Taylor became a member of the State Medical Association in 1901, and was made a councilor of the State Medical Association in 1903. He served in that capacity, and as secretary of the Board of Councilors, until 1910, at which time he was elected Secretary and appointed Editor. He has been a member of the House of Delegates of the American Medical Association since 1911. He is at the present time a member of the Judicial Council of the American Medical Association. He was chairman of the Military Affairs Committee of the American Medical Association during the life of that committee, over a period of several years following the World War. He is now chairman for the State of Texas, of the Committee on Medical Preparedness of the American Medical Association.

The military career of Dr. Taylor has been mainly in the line. His only service in the Medical Department was during the Spanish-American War, at which time he was a hospital steward in the Third Texas United States Volunteer Infantry. His military career began September 4, 1891, at which time he enlisted as a private. He was made

Second Lieutenant within two years, and served in every capacity in the line up to and including Brigadier General, which rank he held at the time of his retirement, April 8, 1938. He was retired with the rank of Brevet Major General.

Dr. Taylor was married October 5, 1910, to Miss Fannie Eleanor Lake, of Marshall. There is one son, Holman Taylor, Jr., at the present time a Sophomore in the Medical Branch of the University of Texas.

SHREVEPORT
THE CITY FOR THE ANNUAL MEETING

Shreveport, with a population of well over 100,000, was founded in 1836 by Captain Henry Miller Shreve, steamboat captain, who purchased the site from Larkin Edwards, a pioneer who had acquired it by a treaty from the Caddo Indians. Shreveport's first name was Shreve's Landing. This was later changed to Shreveport. Shreveport's growth from this humble beginning to its present day size has been phenomenal.

Shreveport was developed as a distributing center for merchandise and supplies going into Mexico, the Republic of Texas, and the Indian Territory, now Oklahoma. The river boats navigated up the Red River and supplies were carried on by wagon trains.

Struggling as a small frontier port for the vast territory of the Southwest for many years, Shreveport was to play an important part in the development of this great section. Steamboats carried most of the freight from the Mississippi ports up the Red River to Shreveport, whence it was loaded on wagon trains and moved into the territory to the west.

Along with this development, Shreveport was also growing in a medical way. Regardless of the fact that Shreveport has no Medical College in her midst, she has long been considered an important medical and surgical center.

Some who are not familiar with the circumstances are amazed to learn that Shreveport has eight hospitals with a combined capacity of 1498 beds. This appears out of proportion when compared with hospital facilities of other cities of equal population. The explanation is found in the fact that Shreveport is surrounded by a populous area known as the land of Ark-La-Tex, which includes South Arkansas, North Louisiana, and East Texas. Within a radius of 50 miles surrounding Shreveport, there is a population of 370,000 and within a radius of 150 miles there is a population of 2,500,000. This is the territory from which Shreveport attracts her trade in all lines of commerce, and it is this same territory from which the Shreveport hospitals draw their patronage. This, of course, does not apply to the State Charity Hospital, which is located in Shreveport, as this institution is supposed to serve only patients who reside in the State of Louisiana.

The Shreveport Charity Hospital had its origin through efforts of city officials and public spirited citizens of Shreveport as far back as 1866. In 1876 the State Legislature passed an act establishing the Shreveport Charity Hospital. The location at that time was at the end of Western Avenue. In 1882, the present site was secured through legislative act providing funds for site and buildings, but the completion of this building program was delayed until 1889. The hospital which was built at that time was a frame building with a capacity only of 40 beds. In 1903 the present building was erected, which would accommodate approximately 200 patients. Since that time, there have been many additions and improvements which bring the present capacity up to 800 beds.

The T. E. Schumpert Memorial Sanitarium was founded as a private institution in the year 1894 (about) by Dr. T. E. Schumpert. This was begun in a two story frame building on Texas Avenue. He later purchased the old Y. M. C. A. building at the corner of Milam and Edwards Streets and continued the sanitarium at that location until a later date when he purchased the old Kate P. Nelson Seminary building. The hospital was operated in this building under the name of The Shreveport Sanitarium with Dr. Schumpert in charge as proprietor.

On June 1, 1907, the Sisters of the Incarnate Word of Galveston, Texas, took charge of the institution through an arrangement between them and Dr. Schumpert, which was consummated prior to his death which occurred May 15, 1908. On May 16, 1911, the Sisters had the formal opening of the present institution on Margaret Place. The present capacity is 142 beds.

The North Louisiana Sanitarium was founded by the late Dr. Louis Abramson and associates in 1907. The location was on Crockett Street, and the capacity was around 60 beds. The sanitarium continued its activities at the above named location until July, 1924, when the new building on Louisiana Avenue was opened with facilities for taking care of 110 patients.

The Highland Sanitarium was founded in 1917 by the late Dr. John A. Hendrick and Dr. Thomas P. Lloyd. The original facilities would care for approximately 75 patients. A few years later additions were made so as to increase the capacity to 110 beds.

The Tri-state Hospital was established in 1924, on the present site, by Drs. L. H. Pirkle and T. E. Williams. The capacity of the hospital at that time was around 65 beds. In 1929 this hospital was enlarged to a capacity of 110 beds and sold by Drs. Pirkle and Williams to the Tri-State Hospital, Incorporated. This corporation is headed by the Willis-Knighton Clinic under whose management the institution has been operated since 1929.

All the above named private hospitals and the Charity Hospital have all the equipment and facilities required for Class A rating and each one of these hospitals has been granted Class A rating by the American College of Surgeons, and also by the Council on Medical Education and Hospitals of the American Medical Association.

In addition to the above named general hospitals, Shreveport has the following special hospitals and sanatoria: The Pines Sanatorium for the treatment of tuberculosis, with a capacity of 104 beds. There are two well equipped buildings, one for white patients and the other for colored patients. This is a semi-charity institution and is partly maintained by the Community Chest and by private gifts. The Pines owes its existence to Mrs. Mayer Benson, of Shreveport, who was its founder and who has been its guardian angel during the 26 years of the existence of this worthy enterprise.

The Shriners Hospital for Crippled Children began its service in Shreveport in September, 1922. This hospital was the first of a chain of similar institutions over the United States which were founded and are being maintained by the Shriners organization. The Shreveport hospital has 60 beds and is doing a wonderful service for indigent crippled children. Dr. H. A. Durham is the chief surgeon and it is through his efforts that the hospital is rated by the American Medical Association Council as being suitable for postgraduate teaching of orthopedic surgery.

The Gowen Sanatorium for the treatment of tuberculosis has a capacity of 22 patients. This institution together with others of similar character has done a great deal to teach the people that tuberculous patients may be treated successfully in any climate regardless of altitude. Dr. Charles R. Gowen is the founder and Chief of Staff since opening the doors of this handsomely equipped hospital in 1932.

The Gilmore Chest Hospital for the treatment of tuberculosis, founded only recently by Dr. Peachy Gilmer, is located on Louisiana Avenue and has a capacity of eighteen beds.

Shreveport has ample hotel facilities; the largest, the Washington-Youree, has recently been reconditioned and will be the headquarters for the meeting of the State Society. While accommodations may usually be obtained, it is suggested that arrangements be made in advance by writing to the hotels or addressing a communication to Dr. Charles R. Gowen, Chairman of Hotel Committee, who will be happy to make the arrangements.

The committees under the general chairmanship of Dr. R. T. Lucas have been hard at work and everything is being prepared to make the meeting worth while as well as pleasant for all visitors.

The Auxiliary has planned a schedule that will keep the ladies entertained throughout the meeting.

The usual luncheons and the annual banquet will be held at the times and places to be announced during the meeting.

Ward rounds have been arranged at the Charity Hospital for Tuesday and Wednesday between the hours of 8 and 9 a. m. under the direction of Dr. Joe Heard, Chief of Surgery.

Shreveport has long had a reputation for hospitality and the many who have come to previous meetings at Shreveport will attest to the comfortable arrangements, the cordiality, and spirit of good fellowship offered by the Shreveport medical profession. An unusually large attendance is anticipated.

TANGIPAHOA PARISH MEDICAL SOCIETY

The regular monthly meeting of the society was called to order at Hammond, 7:30 p. m., March 13, by the president, Dr. DeLoach Thames.

During the first session representatives of civic organizations of the parish attended to hear Dr. J. H. Musser and Dr. F. S. Williams speak on plans for establishing a health unit in Tangipahoa Parish. A committee was appointed by the president to meet with the Survey Committee from the Health Department to determine the exact budget and size of unit needed for this parish.

Dr. Richard Gates gave an interesting talk on the work being done by the Florida Parishes Hospital.

Rules and regulations of the Farm Settlement Program were read by Mr. Stewart at the close of the meeting.

S. J. Cali, M. D., Sec.

BI-PARISH MEDICAL SOCIETY

The Bi-parish Medical Society met March 5 in the East Louisiana State Hospital after a dinner thoroughly enjoyed by all present. The society was called to order in the Staff Room of the Hospital.

After reading the minutes and routine business, Dr. C. W. Mattingly, of New Orleans, read an excellent paper on "Congenital Pyloric Stenosis with Its Modified Surgical Therapy." The paper was discussed favorably by all physicians present. The society extended thanks to Dr. Mattingly for the presentation of his paper.

E. M. Toler, M. D., Sec.

LAFOURCHE VALLEY MEDICAL SOCIETY

The Lafourche Valley Medical Society met in Thibodaux on March 26. The following subjects were presented: "Differential Diagnosis of Blood Dyscrasias" by Dr. Carlo Tripoli of New Orleans; "Diagnosis and Management of Biliary Tract Disease" by Dr. Leo Kerne of Thibodaux.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The fifth annual meeting of the New Orleans Graduate Medical Assembly came to a successful conclusion Friday, March 7, when clinics were held by various members of the Assembly in the hospitals of New Orleans.

The meeting this year was the largest in attendance, largest in the size and number of scientific exhibits and the largest in the number of commercial exhibits that has yet been held. There were slightly under 1,000 people registered, who attended the meetings in large numbers. The daily roundtable luncheons were always the most popular feature, at which one or another or several of the well-known guest speakers spoke extemporaneously on some lively current problem.

It might be said that to the average medical man these meetings are outstanding. They have the opportunity of seeing in person and hearing some of the best known specialists in the country. It is to be hoped that the meetings will continue to grow and each year the convocation will be even better than the previous one.

NEWS ITEMS

Dr. Hilliard E. Miller has been honored by election to the presidency of the American Gynecological Club.

An intensive postgraduate course in ophthalmology will be given at the George Washington University School of Medicine, April 7-12, 1941 inclusive. Details may be obtained in the editorial offices of the Journal.

Attention is called to the announcement that the American Public Health Association will hold its annual meeting this year in Atlantic City, October 14-17. There will also be special programs for the eleven organizations meeting with the American Public Health Association.

The National Gastroenterological Association will meet in New York at the Hotel Commodore, May 13-16. Further information may be obtained from Dr. Henry Kendall, 16 East 96th St., New York City.

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons offers a prize of $150.00 for the successful thesis on a subject related to this particular specialty. Details concerning the prize and rules governing the award may be obtained from Dr. J. R. Bloss, Secretary, 418 Eleventh Street, Huntington, W. Va.

The first Latin American Congress for Plastic Surgery will be held in Rio de Janeiro and Sao Paulo, July 6-12, 1941. Information concerning this meeting may be obtained in the office of the Journal.

Dr. Oliver P. Daly, former superintendent of the Charity Hospital at Lafayette, has been appointed superintendent of the Charity Hospital at New Orleans. Drs. C. B. Odom and J. O. Weilbaecher, Jr., will continue as associate superintendents.

Dr. Alton Ochsner was honored by election to the office of president-elect of the Southeastern Surgical Congress at the recent meeting in Richmond, Virginia, March 10-12.

Dr. John T. Crebbin, formerly of Shreveport, has been appointed superintendent of the Eye, Ear, Nose and Throat Hospital to succeed the late Mr. George L. Ferry.

Beginning with its January-February issue, The Journal of Infectious Diseases will be published by the University of Chicago Press under the editorship of a newly appointed Board of Editors, with William H. Taliaferro, Chairman of the Department of Bacteriology and Parasitology, the University of Chicago, Editor-in-Chief. The Journal is published bi-monthly. It was established in 1904 by the John Rockefeller McCormick Memorial Institute for Infectious Diseases. The publication of this Journal adds another strong link to the chain of scholarly journals published by the University of Chicago Press,—now 18 in all.

COURSE IN TROPICAL MEDICINE

A course in tropical medicine of five days' duration will be given in New York city under the auspices of the New York Post-graduate Medical School of Columbia University. Details of this course, for which the fee is fifty dollars, may be had from the Director, 309 East 20th Street.

MEDICAL OPENING

There is an opening for a young doctor interested in locating in Hazelhurst, Mississippi. Anyone interested should address Mr. J. E. Brent at Hazelhurst.

A. A. I. P. S. AND A. I. H. A.

The annual meeting of the American Association of Industrial Physicians and Surgeons and the American Industrial Hygiene Association will be held May 5-9 in Pittsburgh, with headquarters at the Hotel William Penn. A splendid program has been prepared by the program committee; there will also be scientific exhibits and hospital clinics. At the annual banquet Dr. Irvin Abell, Chairman of Health and Medicine Committee, F. S. A., and Dr. V. O. Knudsen, Dean of the Graduate School, University of California, will be the speakers.

LECTURES ON POLIOMYELITIS

A series of six lectures on poliomyelitis will be delivered under the auspices of the National Foundation for Infantile Paralysis at Vanderbilt University Hospital Amphitheater, Nashville, Tennessee, on April 7, 8, 9, 14, 15 and 16 at 8:00 p. m.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The general oral and pathologic examinations (Part II) for all candidates (Groups A and B) will be conducted at Cleveland, Ohio, by the entire Board from Wednesday, May 28, to Monday, June 2, 1941, inclusive, prior to the opening of the annual meeting of the American Medical Association in Cleveland, Ohio.

AMERICAN COLLEGE OF PHYSICIANS

The annual meeting of the American College of Physicians will be held in Boston, April 21-25. The usual excellent program has been provided for the listeners. The papers and clinics will fill five days, from dawn to dusk. Some of the outstanding features of the program include a symposium on diseases of circulation to be participated in by Meakins of Montreal, King of Hopkins and Stroud of Pennsylvania; a symposium on nutritional and metabolic diseases, in which symposium will be Wilder from The Mayo Clinic, Col. Logan of the U. S. Army, and Mason of the faculty of McGill University; a symposium on military medicine in which the Surgeon General of the army, the Surgeon General of the navy and Surgeon General of the U. S. Public Health Service will speak; a symposium on infectious diseases in which Reimann of Jefferson, Dyer of the U. S. Public Health Service, Horsfall of the International Health Division of the Rockefeller Institute and Herrmann of Galveston, will take part. At noon there will be a series of symposia; one on disorders of the blood and one on Bright's disease, lead respectively by Minot and Doan in the first instance, by Longcope, Fishberg and O'Hare in the second, seem to be particularly interesting. Long, Marshall and Janeway will conduct a discussion on the sulfonamide drugs. There are so many excellent features of the program it hardly seems fair to point out any as being outstanding. The excellency of the program undoubtedly makes this meeting the outstanding meeting in internal medicine in the country.

A. M. G. A. GOLF TOURNAMENT

The American Medical Golfing Association will hold its twenty-seventh annual tournament at Cleveland Country Club and Pepper Pike Club in Cleveland, Ohio, on Monday, June 2, 1941. Members may tee off from 7:30 a. m. to 2 p. m.

Fifty Trophies and Prizes: Thirty-six holes of golf will be played in competition for the fifty trophies and prizes in the eight events. Trophies will be awarded for the Association Championship, thirty-six holes gross, the Will Walter Trophy; the Association Handicap Championship, thirty-six holes net, the Detroit Trophy; Championship Flight, First Gross, thirty-six holes, the St. Louis Trophy; Championship Flight, First Net, thirty-six holes, the President's Trophy; Eighteen Hole Championship, the Golden State Trophy; Eighteen Hole Handicap Championship, the Ben Thomas Trophy and the Atlantic City Trophy; Maturity Event, limited to Fellows over 60 years of age, the Minneapolis Trophy; and the Oldguard Championship, limited to competition of past presidents, the Wendell Phillips Trophy. Forty other prizes will be awarded for the various flights.

INFECTIOUS DISEASES IN LOUISIANA

The morbidity report of the Bureau of Epidemiology of the Louisiana State Department of Health for the week ending February 15, showed that syphilis, according to habit and tradition, led all reported diseases with an incidence of 324 cases, followed by 168 of influenza, 76 of pneumonia, 30 of pulmonary tuberculosis, 29 of uncinariasis, 19 of gonorrhea, 18 of chickenpox, and 13 of cancer. There were three cases of typhus fever, two of tularemia and one of undulant fever listed. For the succeeding week, which closed on Washington's birthday, the following diseases were reported in numbers greater than ten: 194 cases of syphilis, 96 of influenza, 95 of pneumonia, 28 of pulmonary, 23 of gonorrhea. A case of poliomyelitis appeared for the first time in many weeks; it was discovered in East Baton Rouge Parish. One case of typhus fever, one of undulant fever and one of tularemia were also reported this week. For the ninth week of the year, concluded March 1, there were recorded 138 cases of syphilis, 133 of influenza, 59 of measles and of gonorrhea, 40 of chickenpox, 38 of pulmonary tuberculosis, 36 of pneumonia, 18 of whooping cough, and 16 of cancer. Another case of poliomyelitis was listed this week, this time from Calcasieu Parish; three cases of typhus fever were also listed in this period. Three hundred and thirty cases of syphilis were listed for the week ending March 8, followed by 42 each of pneumonia and influenza, 38 of gonorrhea, 33 of chickenpox, 28 of septic sore throat, 21 of measles, and 16 of pulmonary tuberculosis.

HEALTH OF NEW ORLEANS

The Bureau of the Census, U. S. Department of Commerce, reports that for the week ending February 8, there were 173 deaths in the City of New Orleans divided 114 white and 59 negro. Fourteen of these deaths were in children under one year of age. For the following week there was a slight drop in the total number of deaths, there being listed only 167, of which 108 were in

the white and 59 in the negro. The 14 infant deaths were divided equally between the two races. There was a fairly sharp drop in the death rate in New Orleans for the week which closed February 22. The 141 deaths in this week were divided 85 white and 56 negro; 15 children under one year of age expired, divided practically equally between the two races. For the week which came to a close March 1, 156 of the citizenry of New Orleans succumbed; 98 of these were white people and 58 were colored. The 13 infant deaths were divided seven white and six negro. The death rate in the City of New Orleans has been running considerably lower than the three year average; for example, the average for this particular week of the year is 166, whereas there were 147 dying in the city, 95 white and 52 negro, for the week which concluded March 8, 1941. The infant mortality was nine, four white and five negro children.

CORRESPONDENCE

March 17, 1941.

Editor-in-chief,
New Orleans Medical and Surgical Journal,
New Orleans, La.
Dear Sir:

Recently there has been established in this Library with the approval of The Surgeon General of the Army a microfilm copying service and a weekly Current List of Medical Literature prepared from the cards made for future issues of the Index Catalog. These two projects are conducted under the auspices of a recently organized group of Friends of the Army Medical Library. Sample copies of the Current List and a pamphlet describing Medicofilm Service are sent herewith.

The object of this undertaking is to place the resources of this Library at the disposal of those who are engaged in the advancement of medical research irrespective of where they live or work.

Undoubtedly there are many readers of your journal who would be interested in learning of this service and it would be highly appreciated if you could assist us in making facts more widely known, through the columns of your journal. As Librarian of the Army Medical Library, I have a great interest in the work the Friends of the Library are doing, and although I take no part in this officially, I have left no stone unturned to aid them in their work.

Sincerely yours,
Harold W. Jones,
Colonel, M. C., U. S. Army, The
Librarian, Army Medical Library.

WOMAN'S AUXILIARY

Louisiana State Medical Society

President—Mrs. Roy Carl Young, Covington.

President-elect—Mrs. Aynaud Hébert, New Orleans.

First Vice-president—Mrs. Joseph E. Heard, Shreveport.

Second Vice-president—Mrs. W. A. Ellender, Houma.

Third Vice-president—Mrs. M. H. Foster, Alexandria.

Fourth Vice-president—Mrs. C. P. Gray, Monroe.

Treasurer—Mrs. M. C. Wiginton, Hammond.

Recording Secretary—Mrs. P. A. Donaldson, Reserve.

Corresponding Secretary—Mrs. Herbert Cannon, Covington.

ANNUAL MEETING
1941 HEADQUARTERS
WASHINGTON-YOUREE HOTEL

Registration Desk.....Mezzanine Floor
Mrs. Joseph E. Heard.....General Chairman
Mrs. S. George Wolfe.....Vice-Chairman

CHAIRMEN OF COMMITTEES

Mrs. W. J. Sandidge.....Registration
Mrs. John L. Scales.....Information
Mrs. B. C. Garrett.....Program and Tickets
Mrs. D. R. McIntyre.....Publicity
Mrs. Harold Quinn.....Exhibits
Mrs. L. W. Gorton.....Transportation
Mrs. E. Clay Edwards.....Telephone
Mrs. O. O. Jones.....Flowers
Mrs. P. C. Worley.....Pages
Mrs. W. B. Heidorn.....Luncheon
Mrs. T. E. Strain.....Luncheon
Mrs. C. P. Rutledge.....Tea
Mrs. W. R. Harwell.....Printing

OFFICERS OF HOSTESS AUXILIARY

Mrs. C. B. Erickson.....President
Mrs. W. R. Harwell.....President-elect
Mrs. E. Clay Edwards.....First Vice-President
Mrs. Erwin L. Gill.....Second Vice-President
Mrs. M. D. Hargrove.....Recording Secretary
Mrs. J. M. Bodenheimer.....Treasurer
Mrs. J. D. Youman.....Corresponding Secretary
Mrs. W. M. Hall.....Publicity
Mrs. R. T. Lucas.....Parliamentarian

PROGRAM

Monday, April 21

12:30 p. m. Registration—Mezzanine, Washington-Youree Hotel.

1:00 p.m. Luncheon for Executive Board Members, Washington-Youree Hotel.
Pre-convention Executive Board Meeting immediately following luncheon, Mrs. Roy Carl Young, presiding.

8:00 p. m. Opening Meeting.

Tuesday, April 22

10:00 a. m. General Session, Washington-Youree Hotel.
Mrs. Roy Carl Young, presiding.
Invocation—Rev. L. B. Cobb.
Address of Welcome—Mrs. C. B. Erickson.

Response—Mrs. Roy B. Harrison.
In Memoriam—Mrs. H. O. Barker.
Reading of Minutes.
Reports of:
State Officers.
State Committees.
Parish Auxiliaries.
Special Committees.
Report of W. A. to A. M. A., Mrs. A. D. Tisdale, Monroe.
Report of W. A. to S. M. A., Mrs. W. R. Buffington, New Orleans.
Unfinished Business.
Recommendations by Executive Board.
New Business.
Report of Nominating Committee.
Election of Officers.
Introduction of New Officers.
Announcements by New President.
1:00 p. m. Luncheon — Woman's Department Club.
Mrs. R. T. Lucas, Toastmistress.
Adjournment, immediately followed by Post-convention Executive Board Meeting, Mrs. Aynaud Hébert, presiding.
3:30 p. m. Tea, in honor of Mrs. Aynaud Hébert.
9:00 p. m. Dinner Dance.

Wednesday, April 23

11:30 a. m. Book Review by Mrs. Peachy Gilmer, Shreveport Country Club.
1:00 p. m. Luncheon in honor of Mrs. V. E. Holcombe, President Woman's Auxiliary to the American Medical Association.
3:00 p. m. Drive to Iris Gardens.

I am very happy to announce that our National President, Mrs. V. E. Holcombe, of Charleston, West Virginia, will attend our State Convention in Shreveport.

ORLEANS PARISH MEETING

At the regular meeting of the Woman's Auxiliary to the Orleans Parish Medical Society held February 12 at the Orleans Club, Mrs. Roy Carl Young, of Covington, State President of the Auxiliary, gave the following message:

As your president, I have had a year of constructive work and pleasant and helpful associations. Our most vital problem is preserving the fundamental principles of the medical profession; we must not only be thoroughly organized, but we must be educated and we must help educate the public. This can be done by educative programs, public relations, *Hygeia* and legislation.

In organization is strength. One person cannot accomplish what an informed body of people can. Keep up your memberships, and go after new members. Try to improve membership attendance at meetings. This can be done by having worthwhile programs; have scientific papers on medical subjects given by doctors or doctors' wives. When you miss several meetings you get out of touch with auxiliary work and lose interest.

If asked to be chairman of a health program in your club, gladly accept this, for it is an opportunity to help plan a wise and sane program which suits your community. If every doctor's wife would sponsor one worth-while authentic health program each year, our foundation would be a substantial one. Stress, or sponsor, if necessary, periodic health examination for school children, or prenatal work.

In thinking of the present day opportunities for service for a doctor's wife, like the faithful physician, himself, will never be a slacker and her greatest opportunity for service, outside her home, is in working shoulder to shoulder with her husband in his altruistic efforts to eradicate disease and, in so doing, add happiness and prosperity to all those about her. Communities and individuals are health-conscious and wish information. I heard someone say the other day that a girl from birth to the age of 14 needed her mother. From the age of 14 to 40, she needed beauty; from 40 to 60 she needed personality, and from 60 on, she needed money. This is all true, and well she might have added that she needed good health always.

With agitation for socialized medicine, it behooves us as doctors' wives to give watchful assistance in any plans to keep the profession secure. Familiarize yourself with the facts regarding socialized medicine so as to be able to converse with people on this subject when there is need for it.

The Chairman of Legislation in the National Auxiliary has asked each doctor's wife to be a registered voter. We should assume this responsibility as citizens, because democracy can function only when all the citizens vote intelligently. At this time everything that enters into our lives, school, homes and jobs, comes under the jurisdiction of some governmental agency.

Another opportunity for service that we do not want to overlook is that we as women, and mothers of the race, can do much to forward peace in this world which is war torn in so many countries.

Lastly, we do not want to neglect our social part, for friendship is the basis on which our Auxiliary was founded. There is nothing sweeter than the communion of friend with friend. The joy that is created by the companionship of those of like ideals and ambitions creates an atmosphere that lingers in the heart like sweet perfume. Edwin Markham has said:

"There is a destiny
That makes us brothers
None goes his way alone
All that we send into the lives of others
Comes back into our own."

So, we as doctors' wives find our opportunities for services in our present times, many and varied. May we feel that although individually we can accomplish little, we can pool our efforts in the interest of efficiency and that in the end our assets will outweight our liabilities, and that although we have given much, we too, have received.

MEETING OF STATE AUXILIARY BOARD

The pre-convention executive board meeting of the Woman's Auxiliary to the Louisiana State Medical Society was held at the home of the president, Mrs. Roy Carl Young in Covington, on Thursday, February 6.

The meeting was opened as usual by recitation of The Lord's Prayer by the assembly.

Mrs. Young gave a splendid report of her busy year. She has been able to keep in close contact with the auxiliaries by her personal visits to them, as well as assisting in organizing two new auxiliaries, East Baton Rouge, of which Mrs. Cecil Lorio is president, and Iberia with Mrs. Henry J. Dauterive as president.

The reports of chairmen of standing committees and parish presidents were given, each showing much constructive work in the various auxiliaries. Among those were the following: Mrs. F. O. Tomeny, representing Mrs. M. Schudmak of Iberville, for maintaining a room in the Plaquemine Sanitarium, donations to infantile paralysis and tuberculosis funds; Mrs. J. Earle Clayton Second District, for working on increased membership, making of Red Cross layette garments; Mrs. J. W. Warren, Orleans, reported increased interest in the program of cancer control, Red Cross, Community Chest, and recent donation of $100 to the British Ambulance Service, also gifts and a substantial monthly check to an indigent widow; Mrs. V. J. Gautreaux, Tangipahoa, for sponsoring educational health programs in the schools; Mrs. Cecil Lorio, president of the newly organized auxiliary of East Baton Rouge, has a year's work well planned out, with a nicely compiled Year Book; Mrs. Walter D. Simmons, St. Tammany, reports a great deal of sewing done for the Red Cross. Mrs. J. E. Heard of Shreveport, first vice-president of the State Auxiliary, reports that Caddo Parish has been carrying out a full program which includes generous help, year after year, to the children of the Tuberculosis Preventorium.

Mrs. Heard also extended a cordial invitation to attend the State Convention in Shreveport on April 21, 22, 23, 1941. Other auxiliaries not represented at the meeting had sent their reports.

As many doctors are now entering military service it was voted to exempt their wives from payment of dues during this time. We were glad to welcome Mrs. A. A. Herold, of Shreveport, our parliamentarian, to whom this Auxiliary owes a great deal, for it was through her efforts that the Auxiliary was founded in 1929, and to whom we still look for counsel and advice.

A delightful buffet luncheon was served following the meeting.

Respectfully submitted,
Mrs. Edgar Burns.

A. M. A. MEETING

Only a few more weeks and the members of the Woman's Auxiliary to the American Medical Association will be arriving in Cleveland for their Annual Convention, June 2-6. Have you made your reservations? If not, send your request, at once, to Dr. Edward F. Kieger, Chairman of Committee on Hotels and Housing, 1604 Terminal Tower Building, Cleveland.

Respectfully submitted,
Mrs. Jonas W. Rosenthal,
Pres. and Publicity Chairman.

BOOK REVIEWS

Malaria and Colonization in the Carolina Low Country 1526-1696: By St. Julien Ravenel Childs. Baltimore, Johns Hopkins Press, 1940. Pp. 292. Price $2.50.

This is an interestingly written and well documented account of the relationship between malaria and colonization in the coastal area of eastern United States extending from Florida to Cape Hatteras. The area has been inhabited by European stock since the establishment of an English settlement at Ashley River (near Charleston) in 1670. Malaria has persisted in this area with a greater or lesser degree of virulence until this date. One can find little quarrel with the generally splendid historical account, and much to commend in the healthy skepticism manifest in the critical examinations of clinical descriptions of questionable instances of malaria. Again the excellent bibliography is to be commended. However, many may question and quarrel with some of the author's broader philosophic statements; viz, "Men being mortal, none save in fable and miracle has successfully denied that disease is mighty over the individual, but society being immortal, it is permissible to believe that parasites and viruses have played an unimportant role in social history. When the medicine man assumes the pose of prophet, it is well to recall that man's worst enemy has never been a bug."

The monograph is divided into seven chapters. The introductory chapter deals with the natural history of the malarial organism, and the general relationship between malaria and colonization. The next two chapters consider the earlier colonies

which failed, and special attention is given to the Spanish Colonies and posts in Florida. The remaining chapters consider the English Colony at Ashley River. This relationship between malaria and the successful development of this colony is well presented from many angles.

This is a fine piece of original medico-historical research and is recommended to those who are interested in either malaria or in a well-organized, capably written and carefully documented medico-historical account.

B. BERNARD WEINSTEIN, M. D.

Carbon Monoxide Asphyxia: By Cecil K. Drinker, M. D., D. Sc. London, New York and Toronto, Oxford University Press, 1938. Pp. 276, 40 fig. Price $4.50.

The rapidity with which chemical energy is converted into heat is one of the measures of the tempo of an industrial civilization. It is also an index of the concentration of carbon monoxide in the air and of the incidence of both acute and chronic monoxide poisoning. Still more important, it is a measure of the challenge of this problem to the ingenuity of engineers and public health workers and of the imperative call for their collaboration to combat this menace to health.

The book is dedicated to Oscar H. Figg, "who, first as Secretary-Manager of the American Gas Association and later as an executive of the Consolidated Edison Company of New York, has worked steadily, effectively and unselfishly for safety in the use of gas." Such a dedication is an expression of the solidarity of the engineering and medical professions in their attack upon this special problem.

The book includes the essential general data on the subject in the physiologic, biochemical, pathologic, toxicologic, industrial and medical aspects. It also describes the technic of the chemical analytic methods by which the concentration of carbon monoxide can be measured.

The point of view and selection of topics, as well as the style and format of this book, can be very simply appraised: It need merely be recorded that the monograph is another contribution worthy of the previous achievements of the School of Public Health at Harvard University and of its distinguished Dean. It will be useful to physicians, industrial engineers, and others who are concerned with the problems of public health, especially during our efforts to effect an impregnable national defense.

JAMES CARL RICE, PH.D.

The Patient Is the Unit of Practice: By Duane W. Propst, A. B., B. S., M. D. Springfield, Illinois, Charles C Thomas, 1939. Pp. 219. Price $3.50.

In this philosophic treatise on the diagnosis and treatment of disease, Dr. Propst urges the physician, in effect, to remember that he is treating a human being and not merely a collection of diseased organs. It is important accordingly to utilize the "functional approach" and to direct the medical care so that the patient's way of living may be restored as nearly as possible to a normal standard. He gives examples of his method of blending the skill of the scientist with the art of the practitioner in accomplishing this.

The book is well worth reading. Its tenor is best appreciated by the opening quotation from Sydenham that "more importance is to be attached to the desires and feelings of the patient, provided they are not excessive or dangerous, than to doubtful and fallacious rules of medical art."

SYDNEY JACOBS, M. D.

Diseases of the Mouth and Their Treatment: By Hermann Prinz, A. M., D. D. S., M. D., D. Sc., Dr. Med. Dent., and Sigmund S. Greenbaum, B. S., M. D., F. A. C. P. Philadelphia, Lea & Febiger, 1939. Pp. 670. Price $9.00.

This is a well-prepared book for the student and practitioner, both dental and medical; it covers its subject as well as reviewing embryology, anatomy and physiology of the oral cavity.

The first edition was an excellent contribution to medical libraries, but the several additions to this second edition have made it even more noteworthy. A new chapter on lymphadenitis, Dr. H. R. Churchill's classification of the tumors of the mouth, as well as seventy-five new illustrations, are some of the improvements in the new publication.

The authors are particularly well qualified to present this work due to their previous accomplishments and their classroom experience as members of the faculty at the University of Pennsylvania Medical and Dental Schools.

F. HAROLD WIRTH, D. D. S.

The Compleat Pediatrician: By Wilburt C. Davison, M. A., D. Sc., M. D. Durham, N. C., Duke University Press, 1940. Pp. 256. Price $3.75.

Notwithstanding the fact that several new or revised pediatric textbooks have been published during the last year, the third edition of "The Compleat Pediatrician" still remains the outstanding book of its type in the pediatric field. In this third edition many changes have been made, and much new information has been added, making it, in many respects, a much more valuable guide than the previous editions.

Of particular interest is the last chapter of the book which lists the drugs and prescriptions frequently used in pediatrics. It is this chapter above all others which should be most valuable to the general practitioner, for unless one is constantly prescribing for an infant and child, the correct dosage of any drug is very likely to be questionable. Another outstanding feature of the book is the chapter devoted to laboratory and other procedures. In no other available pediatric source book is so much information presented in such a concise

and terse fashion. Dr. Davison, realizing how easy it is to forget certain steps of the various accepted laboratory procedures, has so designed his text that with a minimal amount of effort and time the method desired can be readily brought to mind.

The medical student, the general practitioner, the intern and the pediatrician will find this third edition a veritable storehouse of information, wherein that information is obtained quickly and without too many irrelevant facts.

H. P. MARKS, M. D.

Massage and Remedial Exercises: By Noël M. Tidy. Baltimore, William Wood & Co., 1939. Pp. 458. Price 15s.

The author has written a very complete work particularly adapted as a textbook book for students of physiotherapy or medical gymnastics. Every conceivable condition to which exercises and muscle training can be adapted has been covered with the appropriate exercises for each condition described. A brief summary of the essential symptoms and pathology of each condition precedes the prescribed treatment and should be particularly helpful in assisting the student to familiarize himself with the condition which he is attempting to treat, a phase of the subject all too frequently neglected in most texts of this type.

It is very questionable whether any of our American surgeons would have sufficient confidence in a physiotherapist to allow them to remove a badly comminuted Pott's fracture or fracture of both bones of the leg from the retaining apparatus at the end of a seven to ten day period as recommended by the author, and institute active exercise. The reviewer believes the teaching of complete immobilization until consolidation of the fracture is too firmly fixed in this country to allow institution of this type of treatment.

It is also difficult to understand to just what part in the treatment of such conditions as pernicious anemia, hemophilia, chronic nephritis, tonsillitis and other related diseases, massage and exercises can be adapted.

The volume is written with the clearness of detail which is so characteristic of most English authors and on a whole is a very acceptable text for the physiotherapist and an excellent reference work for the orthopedist and surgeon who have occasion to use this type of treatment.

HARRY D. MORRIS, M. D.

The Abnormal in Obstetrics: By Sir Comyns Berkeley, M. A., M. C., M. D. (Cantab.), F. R. C. P. (Lond.), F. R. C. S. (Eng.), M. M. S. A. (Hon.), F. C. O. G., Victor Bonney, M. S., M. D., B. Sc. (Lond.), F. R. C. S. (Eng.), F. R. A. C. S. (Hon.), M. R. C. P. (Lond.), and Douglas MacLeod, M. S., M. B. (Lond.), F. R. C. S. (Eng.), F. R. C. P. (Lond.), M. C. O. G. Baltimore, William Wood & Company, 1938. Pp. 525. Price $6.00.

Not intended to replace the usual obstetric textbook, this book is written "in the hope that it will prove useful to those ambitious of passing one of the higher examinations in obstetrics." Even the rarest of medical and surgical complications, such as phlegmonous enteritis, trypanosomiasis, and sutika are mentoned briefly, with a paragraph devoted to the treatment of each.

Abnormalities of the puerperium, malformations and diseases of the newborn, and postpartal complications complete this volume which might be referred to as a dictionary of abnormal obstetrics. At least one reference may be found to any disease associated with pregnancy.

EUGENE H. COUNTISS, M. D.

PUBLICATIONS RECEIVED

Chedney Press, New York City: Merchants in Medicine, by Emanuel M. Josephson, M. D.

Interscience Publishers, Inc., New York City: Manual of Clinical Chemistry, by Miriam Reiner, M. Sc.

The Johns Hopkins Press, Baltimore: Studies on Tuberculosis, The American Journal of Hygiene Monographic Series, No. 16, February, 1941.

Lea & Febiger, Philadelphia: A Diabetic Manual, by Elliott P. Joslin, M. D., Sc. D.

The Macmillan Company, New York City: Bacillary and Rickettsial Infections, by William H. Holmes.

Charles C Thomas, Springfield, Illinois: Diseases Transmitted from Animals to Man, by Thomas G. Hull, Ph.D.

The University of Toronto Press, Toronto: The Parasites of Man in Temperate Climates, by Thomas W. M. Cameron.

The Williams & Wilkins Company, Baltimore: Emergency Surgery, by Hamilton Bailey, F. R. C. S. (Eng.). A Laboratory Manual of Physiological Chemistry, by D. Wright Wilson.